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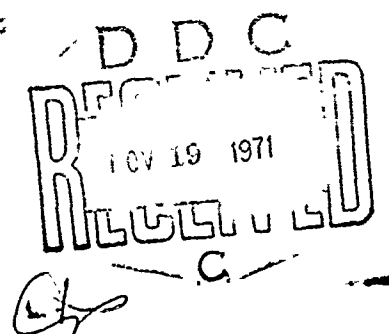
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DEPARTMENT OF DEFENSE
IN-HOUSE RDT&E ACTIVITIES

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30 OCTOBER 1970

Management Analysis Report ...

Office for Laboratory Management

Office of the Director of Defense
Research and Engineering
Washington, D.C.

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DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES

Evan D. Anderson

30 October 1970

Management Analysis Report 70-4

Office for Laboratory Management
Office of the Director of Defense Research and Engineering
Washington, D.C. 20301

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FOREWORD

At the request of the Director of Defense Research and Engineering, the Departments of the Army, the Navy and the Air Force provided comprehensive data on the finances, manpower and facilities of their organizations that perform research, development, test and evaluation (RDT&E). In addition, they briefly described their individual missions, current important programs, and their functions and equipment capabilities. The statistical data relate to the past and current fiscal years, i.e., 1970 and 1971.

Each in-house RDT&E organization of the Department of Defense is described on one page in this compilation. The data for FY 1970 are summarized in tables beginning on page ix.

This edition is the fifth of a series that started in 1966. All information was submitted on key-punched cards and the report's preparation was thus entirely automated, with some manual correction of typographical errors and clarification of obscure abbreviations and contractions. The computer that produced the printed pages had no ampersand (&) and, instead, usually printed a plus sign (+) for the word "and."

All current DoD RDT&E activities are indexed in Appendix IA. Some new organizational names appear in this issue, and others have been changed since last year; for this information, see Appendix IB.

Appendix II contains the definitions given in DoD Instruction 7700.9¹ and employed as the basis for these data. Appendix III lists selected standard abbreviations and acronyms.

A considerable amount of additional information regarding the structure of each laboratory's R&D program, its source of funds, and the composition of its staff was collected, is being analyzed, and will be published separately.

¹DoD Instruction 7700.9, "Research and Development Resource Data for In-House RDT&E ACTIVITIES," dated 25 July 1969.

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SUMMARY

DEPARTMENT OF DEFENSE R&D LABORATORIES AND TEST ACTIVITIES

PROGRAM DATA FOR FY 1970 (ACTUAL)

	(MILLIONS \$)
TOTAL ANNUAL LABORATORY PROGRAM	3877.632
TOTAL IN-HOUSE PROGRAM	2080.366
TOTAL RDT+E PROGRAM	2495.550
TOTAL IN-HOUSE RDT+E	1371.107
TOTAL ANNUAL OPERATING COST	589.369

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	32639	1056	7693
CIVILIAN	85562	2637	28064
TOTAL	118201	3693	35757

PHYSICAL FACILITIES (END OF FY 1970)

ACRES.....	9476930
SPACE (THOUSANDS OF SQ FT)	
LABORATORY.....	31699.227
ADMINISTRATIVE.....	10325.220
OTHER.....	62123.571
TOTAL.....	104148.018
COST (MILLIONS \$)	
REAL PROPERTY.....	3447.620
EQUIPMENT.....	3342.323
TOTAL.....	6789.903

TABLE 2. ARMY ROTARY FACILITIES DATA, FY 1972

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)	SPACE AND PROPERTY		COST (MILLIONS \$)
			LABORATORY	ADMIN	REAL PROPERTY EQUIPMENT
LAND WARFARE LAB, ABERDEEN PROVING GROUND, MD	84	37.311	2.655	12.628	4.674 0.684
BEHAVIORAL SCIENCE RESEARCH LAB, WASHINGTON, D.C.	0	26.116	4.067	1.893	2.165 1.825
ENGINEER TOPOGRAPHIC LAB., FT. BELVOIR, VA.	2	44.214	9.133	2.667	4.002 10.761
ENGINEER WATERWAYS EXPERIMENT STATION, VICKSBURG, MISS.	2140	1367.000	345.202	224.311	14.074 20.031
CONSTRUCTION ENGINEERING RESEARCH LAB, URBANA, ILL.	14	68.875	32.875	2.674	3.481 1.633
INSTITUTE OF SURGICAL RESEARCH, BROOKS AFB, FT. SAM HOUSTON, TEX.	1	11.662	0.802	28.724	4.412 0.739
AEROMEDICAL RESEARCH LAB., FT. RUCKER, ALA.	0	21.495	5.940	7.470	4.191 0.938
INSTITUTE OF DENTAL RESEARCH, WALTER REED AFB, WASHINGTON, D.C.	4	5.640	5.524	1.572	2.022 0.535
MEDICAL BIOMECHANICAL RESEARCH LAB, WALTER REED AFB, WASHINGTON, D.C.	2	11.463	1.022	0.807	3.882 0.360
MEDICAL RESEARCH AND NUTRITION LAB, FITZSIMONS G.H., DENVER, COLO.	2	84.283	5.130	16.624	3.391 4.416
MEDICAL EQUIPMENT R&D LAB, FT. TOTTEN, FLUSHING, N.Y.	0	7.664	3.577	31.729	0.566 3.233
MEDICAL RESEARCH LAB, FT. KNOX, KY.	14	86.442	5.368	26.783	0.938 2.616
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE, NATICK, MASS	4	74.157	12.356	30.617	0.922 2.511
WALTER REED ARMY INSTITUTE OF RESEARCH, WASHINGTON, D.C.	1170	353.700	57.508	0.808	2.002 12.511
MEDICAL RESEARCH UNIT, KUALA LUMPUR, MALAYSIA	0	5.800	0.600	0.000	0.261 0.261
MEDICAL RESEARCH OF INFECTIOUS DISEASES, FT. DETRICK, MD.	0	7.000	0.900	0.000	0.104 0.200
LETTERMAN ARMY INST. OF RESEARCH, PRESIDIO OF SAN FRANCISCO, CALIF.	15	84.143	17.622	97.731	0.236 1.930
AERONAUTICAL RESEARCH LAB, AMES RESEARCH CENTER, MOFFETT FIELD, CAL.	2	107.000	12.800	1.600	2.052 2.472
BALLISTIC RESEARCH LABS, ABERDEEN PROVING GROUND, MD.	3362	5.021	2.207	0.096	0.000 0.000
COATING AND CHEMICAL LABS, ABERDEEN PROVING GROUND, MD.	1	194.717	41.500	24.034	11.065 16.553
COLD REGIONS REG LAB, HANOVER, N.H.	1	16.625	1.868	4.269	0.200 0.009
HARRY DIAMOND LABS, WASHINGTON, D.C.	769	15.213	9.848	108.415	0.431 0.431
HUMAN ENGINEERING LABS, ABERDEEN PROVING GROUND, MD.	2138	296.207	49.555	286.364	0.431 18.549
MATERIALS AND MECHANICS RESEARCH CENTER, WATERTOWN, MASS.	10	26.000	17.665	24.658	2.357 2.357
NUCLEAR DEFENSE LAB., EDWARDS ARSENAL, MD.	48	412.100	122.403	129.000	14.774 11.347
NATICK LABS, NATICK, MASS.	129	33.622	32.599	3.795	1.335 5.572
AVIATION MATERIAL LABS., FT. EUSTIS, VA.	3206	525.000	69.320	365.680	35.154 11.493
AVIATION TEST ACTIVITY, EDWARDS AFB, CAL.	108	75.393	38.890	5.788	1.469 5.521
ELECTRONICS R&D LAB, FT. MONMOUTH, N.J.	940	4.280	32.830	98.490	3.627 3.627
MISSILE COMMAND R&D LABS., REDSTONE ARSENAL, ALA.	11000	852.625	82.803	581.554	41.526 160.764
MOBILITY EQUIPMENT R&D CENTER, FT. BELVOIR, MD.	1060	693.768	128.907	92.577	23.650 34.208
FRANKFORD ARSENAL LABS., PHILA., PA.	22	558.000	200.490	348.865	23.525 29.718
DIAGNOSTIC ARSENAL LABS., GOVER, N.J.	5852	613.522	860.038	2368.584	2.972 8.336
HIGH LOGICAL LABS., FT. DETRICK, MD.	1205	104.390	114.055	829.150	71.747 47.346
EDWARDS ARSENAL LABS., EDWARDS ARSENAL, MD.	4055	513.536	146.425	184.523	68.929 19.596
ROCK ISLAND ARSENAL LABS., ROCK ISLAND, ILL.	18	352.462	82.525	71.097	18.591 8.722
WATERVLIET ARSENAL LABS., WATERVLIET, N.Y.	4	100.260	23.250	0.000	1.463 9.840
TANK-AUTOMOTIVE COMMAND LABS., WARREY, WICH.	1125	313.508	0.000	0.000	1.252 3.356
USCIFT TEST CENTER (LABS) DUGWAY, UTAH	846299	180.483	124.691	1652.334	13.183 7.338
WHITE SANDS MISSILE RANGE, WHITE SANDS, N.M.	4535464	1432.878	321.543	2889.217	67.621 36.564
ARCTIC TEST CENTER, FT. CREELEY, ALASKA	726207	11.126	34.584	181.862	134.714 138.373
TROPIC TEST CENTER, FT. CLAYTON, CANAL ZONE	34127	5.007	125.623	175.194	34.962 7.025
DEVELOPMENT AND PROOF SERVICES, APG, MD.	71205	0.000	5.419	974.695	6.100 2.118
INFANTRY BOARD, FT. BENNING, GA.	2	2.250	54.638	19.281	247.861 105.767
AIRBORNE, ELECTRONIC AND SPECIAL WARFARE BOARD, FT. BRAGG, N.C.	0	0.000	36.134	78.558	0.400 0.360
AIR DEFENSE BOARD, FT. ALISS, TEX.	26	3.718	33.478	77.417	0.762 2.000
ARMOR AND ENGINEER BOARD, FT. KNOX, KY	6570	6.200	68.068	328.093	11.344 11.344
ARTILLERY BOARD, FT. SILL, OKLA.	23	4.009	61.245	39.758	8.303 2.271
AVIATION TEST BOARD, FT. RUCKER, ALA.	2149	3.218	19.190	207.155	0.003 1.030
GENERAL EQUIPMENT TEST ACTIVITY, FT. LEE, VA.	453	68.589	21.625	21.360	2.655 11.500
ELECTRONICS PROVING BOARD, FT. HUACHUCA, ARIZ.	9231	0.000	219.847	0.000	1.500 3.288
YUMA PROVING GROUND, YUMA, ARIZ.	943864	0.000	72.200	429.186	4.415 33.789
ARMY MATERIAL SYSTEMS AND ANALYSIS AGENCY, APG, MD.	4	0.000	19.421	3.685	74.724 46.438
TOTALS	7213861	11213.922	4030.463	13655.651	962.651 881.881

TABLE 3. NAVY ROT+E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1970

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA											
	TOTAL	IN-HOUSE	ROT+E	IN-HOUSE ROT+E	TOTAL MIL	IN-HOUSE MIL	PHD CIV	PHD MIL	PROF CIV	PROF MIL	TOTAL CIV	IN-HOUSE CIV	PHD CIV	PHD MIL	PROF CIV	PROF MIL
NAVAL UNDERWATER WEAPONS R&E STATION, NEWPORT, R. I.	33.625	21.985	9.894	6.4	64	1580	0	20	13	682	13	682	0	20	13	682
NAVAL AIR ENGINEERING CENTER, PHILADELPHIA, PA.	74.762	37.360	7.329	4.8/4	81	2231	1	0	20	360	20	360	1	0	20	360
NAVAL SHIP R&D CENTER, WASHINGTON, D.C.	61.515	36.454	45.933	25.990	25	1933	3	62	25	748	25	748	3	62	25	748
NAVAL RESEARCH LABORATORY, WASHINGTON, D.C.	181.714	94.915	89.133	82.334	90	3626	3	363	10	1370	10	1370	3	363	10	1370
NAVAL WEAPONS LABORATORY, DAHLGREN, VA.	63.595	48.381	20.098	16.640	122	2499	0	54	30	918	30	918	0	54	30	918
NAVAL AIR TEST CENTER, PATUXENT RIVER, MD.	63.800	58.066	25.840	23.827	1158	2198	0	1	157	421	157	421	0	1	157	421
NAVAL ELECTRONICS LABORATORY CENTER, SAN DIEGO, CALIF.	42.515	40.148	12.707	30.468	126	1412	3	50	45	699	45	699	3	50	45	699
NAVAL EXPLOSIVE ORDNANCE DISPOSAL FACILITY, INDIAN HEAD, MD.	3.628	2.329	1.115	0.757	57	132	0	0	12	13	12	13	0	0	12	13
NAVY TOXICOLOGY UNIT, NMMC, BETHESDA, MD.	0.308	0.308	0.180	0.180	17	8	0	0	6	6	6	6	0	0	6	6
NAVAL WEAPONS CENTER, CHINA LAKE, CALIF.	0.224	0.224	0.299	0.299	13	4851	0	0	26	1489	0	26	0	0	26	1489
NAVAL UNIT, FORT PETRICK, FREDERICK, MD.	185.083	102.173	96.359	63.547	723	4851	0	92	26	6	0	92	0	92	26	6
NAVAL MEDICAL RESEARCH UNIT NO.1, BERKELEY, CALIF.	0.224	0.224	0.299	0.299	13	0	0	0	3	0	0	0	0	0	3	0
NAVAL ORDNANCE LABORATORY, WHITE OAK, MD.	70.866	54.095	53.083	40.627	15	2987	1	118	77	1016	1	118	1	118	77	1016
NAVAL SHIP R&D LAB., PANAMA CITY, FLA.	14.921	12.552	10.821	8.959	163	614	4	11	15	241	4	11	4	11	15	241
NAVAL TRAINING DEVICES CENTER, ORLANDO, FLA.	88.966	22.126	17.922	10.640	49	1148	1	18	23	384	49	1148	1	18	23	384
NAVAL SHIP R&D LAB., ANNAPOLIS, MD.	21.633	20.024	17.379	15.904	6	968	0	31	4	446	6	968	0	31	4	446
NAVAL MEDICAL RESEARCH UNIT NO.3, CAIRO, EGYPT	1.750	1.750	1.372	1.372	85	117	7	12	11	18	85	117	7	12	11	18
PACIFIC MISSILE RANGE, POINT MUGU, CALIF.	95.222	64.428	67.659	43.713	860	3857	8	7	94	428	860	3857	8	7	94	428
NAVAL ORDNANCE MISSILE TEST FACILITY, WHITE SANDS, N. MEX.	3.576	3.139	1.708	1.490	195	89	2	1	52	4	195	89	2	1	52	4
NAVAL MEDICAL FIELD RESEARCH LAB., CAMP LEJEUNE, N.C.	1.113	1.113	0.755	0.755	29	52	7	3	9	9	29	52	7	3	9	9
NAVAL AIR DEVELOPMENT CENTER, JOHNSVILLE, PA.	88.232	56.205	68.150	44.925	438	2251	8	24	94	989	438	2251	8	24	94	989
NAVAL MEDICAL RESEARCH UNIT NO.4, GREAT LAKES, ILL.	1.038	1.038	0.643	0.643	34	45	7	1	13	8	34	45	7	1	13	8
NAVY CLOTHING AND TEXTILE RESEARCH UNIT, NATICK, MASS.	1.216	1.216	0.595	0.595	2	66	2	0	0	24	2	66	2	0	0	24
NAVAL AIR PROPULSION TEST CENTER, TRENTON, N. J.	12.566	11.020	6.572	5.757	10	710	0	0	6	155	10	710	0	0	6	155
NAVAL CIVIL ENGINEERING LABORATORY, PCRT HUENEME, CAL.	11.538	7.972	5.684	4.092	16	365	2	32	8	177	16	365	2	32	8	177
NAVAL WEAPONS EVALUATION FACILITY, ALBUQUERQUE, N.MEX.	4.081	4.053	1.432	1.404	236	92	0	1	64	36	236	92	0	1	64	36
NAVAL MEDICAL RESEARCH UNIT NO.2, TAIPEI, TAIWAN	1.905	1.905	1.325	1.325	36	10	11	2	16	3	36	10	11	2	16	3
NAVAL AEROSPACE RECOVERY FACILITY, EL CENTRO, CALIF.	4.684	4.659	3.029	3.004	171	109	1	0	16	21	171	109	1	0	16	21
NAVY WEATHER RESEARCH FACILITY, NORFOLK, VA.	1.885	1.063	1.308	0.868	14	58	2	2	8	29	14	58	2	2	8	29
NAVAL AIR TEST FACILITY, LAKEHURST, N. J.	11.166	11.166	2.236	2.236	155	429	0	0	9	75	155	429	0	0	9	75
NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT, SAN DIEGO, CALIF.	0.966	0.966	0.836	0.836	9	52	8	7	8	18	9	52	8	7	8	18
NAVAL MISSILE CENTER, POINT MUGU, CALIF.	53.254	41.296	25.614	19.306	727	1580	3	7	52	472	727	1580	3	7	52	472
NAVAL PERSONNEL RESEARCH ACTIVITY, SAN DIEGO, CALIF.	3.136	3.136	2.862	2.862	35	195	0	30	35	102	35	195	0	30	35	102
NAVAL MEDICAL RESEARCH INSTITUTE, NMMC, BETHESDA, MD.	6.508	6.508	4.555	4.555	172	245	36	43	81	119	172	245	36	43	81	119
NAVAL BLOOD RESEARCH LAB., N. H., CHELSEA, MASS.	0.407	0.407	0.272	0.272	9	13	3	1	4	2	9	13	3	1	4	2
NAVY SPACE SYSTEMS ACTIVITY, LOS ANGELES, CALIF.	7.591	0.549	7.591	0.549	28	58	1	1	9	19	28	58	1	1	9	19
NAVAL DENTAL RESEARCH INSTITUTE, NTC, GREAT LAKES, ILL.	0.558	0.558	0.313	0.313	17	10	7	2	0	6	17	10	7	2	0	6
ATLANTIC UNDERSEA TEST AND EVALUATION CENTER, W. PALM BEACH, FLA.	13.468	3.013	12.005	2.328	55	88	0	0	6	31	55	88	0	0	6	31
NAVY ELECTRONIC SYSTEMS TEST FACILITY, PATUXENT RIVER, MD.	4.678	4.678	3.013	2.328	35	134	0	0	0	51	35	134	0	0	0	51
NAVAL UNDERSEA TEST CENTER, SAN DIEGO, CALIF.	60.682	39.247	34.116	24.030	371	1462	3	65	27	615	371	1462	3	65	27	615
NAVAL PERSONNEL R&D LAB, WASHINGTON, D.C.	3.997	3.997	3.156	3.156	24	231	1	6	14	135	24	231	1	6	14	135
NAVAL AEROSPACE MEDICAL RESEARCH LAB., PENSACOLA, FLA.	3.599	3.599	3.192	3.192	26	114	7	17	10	32	26	114	7	17	10	32
NAVAL SUBMARINE MEDICAL RESEARCH LAB, NEW LONDON, GROTON, CONN.	1.796	1.796	1.226	1.226	23	66	7	11	12	35	23	66	7	11	12	35
NAVY UNDERWATER SOUND LABORATORY, NEW LONDON, CONN.	35.052	26.036	23.886	17.778	61	1306	0	34	10	586	61	1306	0	34	10	586
TOTALS	1262.977	857.959	711.663	526.759	6575	39114	149	1130	1104	12724	6575	39114	149	1130	1104	12724

TABLE 4. NAVY ROT+E FACILITIES DATA, FY 1970

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
NAVAL UNDERWATER WEAPONS R&D STATION, NEWPORT, R. I.	202	189.148	133.959	355.278	13.951	13.262
NAVAL AIR ENGINEERING CENTER, PHILADELPHIA, PA.	560	1396.066	157.635	727.159	33.528	19.898
NAVAL SHIP R&D CENTER, WASHINGTON, D.C.	208	811.955	132.118	504.042	50.575	31.059
NAVAL RESEARCH LABORATORY, WASHINGTON, D.C.	2178	2024.770	205.998	694.562	66.694	67.167
NAVAL WEAPONS LABORATORY, DAHLGREN, VA.	4490	482.647	72.296	832.773	37.469	29.994
NAVAL AIR TEST CENTER, PATUXENT RIVER, MD.	6861	741.022	186.064	3094.351	114.812	28.229
NAVAL ELECTRONICS LABORATORY CENTER, SAN DIEGO, CALIF.	1944	571.413	113.064	176.445	12.906	29.968
NAVAL EXPLOSIVE ORDNANCE DISPOSAL FACILITY, INDIAN HEAD, MD.	1084	37.327	26.759	33.914	4.707	0.715
NAVY TOXICOLOGY UNIT, NMMC, BETHESDA, MD.	0	22.600	1.400	1.416	1.870	3.500
NAVY WEAPONS CENTER, CHINA LAKE, CALIF.	1895805	1680.971	220.422	5215.541	227.449	84.301
NAVY UNIT, FURT DETRICK, FREDERICK, MD.	0	0.000	2.025	0.001	0.000	0.000
NAVAL MEDICAL RESEARCH UNIT NO.1, BERKELEY, CALIF.	0	1.550	0.360	0.000	0.000	0.259
NAVAL ORDNANCE LABORATORY, WHITE OAK, MD.	1266	355.903	75.036	739.599	46.970	28.321
NAVAL SHIP R&D LAB., PANAMA CITY, FLA.	6.1	165.304	35.296	292.336	14.352	10.456
NAVAL TRAINING DEVICES CENTER, ORLANDO, FLA.	62	93.500	201.356	121.560	2.794	3.183
NAVAL SHIP R&D LAB., ANNAPOLIS, MD.	66	337.000	42.000	120.000	13.411	6.656
PACIFIC MISSILE RANGE, POINT MUGU, CALIF.	5	25.000	7.000	44.000	2.791	0.561
NAVAL ORDNANCE MISSILE TEST FACILITY, WHITE SANDS, N. MEX.	29164	50.000	300.000	2000.000	149.452	88.750
NAVAL MEDICAL FIELD RESEARCH LAB., CAMP LEJEUNE, N.C.	112	84.742	30.719	236.239	6.552	3.361
NAVAL AIR DEVELOPMENT CENTER, JOHNSVILLE, PA.	750	28.226	8.655	15.590	0.490	0.600
NAVAL MEDICAL RESEARCH UNIT NO.4, GREAT LAKES, ILL.	1	912.700	97.848	298.743	22.163	38.418
NAVY CLOTHING AND TEXTILE RESEARCH UNIT, NATICK, MASS.	2	20.732	11.576	13.649	0.365	0.398
NAVAL AIR PROPULSION TEST CENTER, TRENTON, N. J.	66	14.004	7.000	3.000	0.275	0.493
NAVAL CIVIL ENGINEERING LABORATORY, PORT HUENEME, CAL.	22	416.897	51.520	135.954	44.154	12.990
NAVAL WEAPONS EVALUATION FACILITY, ALBUQUERQUE, N. MEX.	4	120.352	21.977	31.548	4.956	4.902
NAVAL MEDICAL RESEARCH UNIT NO.2, TAIPEI, TAIWAN	2	17.942	17.942	91.118	1.700	0.374
NAVAL AEROSPACE RECOVERY FACILITY, FL CENTRO, CALIF.	101290	32.780	38.674	17.826	2.000	0.730
NAVY WEATHER RESEARCH FACILITY, NORFOLK, VA.	1	33.000	10.000	263.000	8.598	2.494
NAVY AIR TEST FACILITY, LAKEHURST, N. J.	2500	11.886	1.401	4.351	0.072	0.422
NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT, SAN DIEGO, CALIF.	0	50.895	30.498	0.000	0.181	6.912
NAVY MISSILE CENTER, POINT MUGU, CALIF.	3	11.177	4.500	0.000	0.000	0.218
NAVAL PERSONNEL RESEARCH ACTIVITY, SAN DIEGO, CALIF.	1	101.925	150.569	633.941	16.412	38.240
NAVAL MEDICAL RESEARCH INSTITUTE, NMMC, BETHESDA, MD.	4	47.300	4.900	0.000	0.210	0.254
NAVY SPACE SYSTEMS ACTIVITY, LOS ANGELES, CALIF.	0	166.264	12.945	18.820	3.775	3.235
NAVY DENTAL RESEARCH INSTITUTE, NTC, GREAT LAKES, ILL.	0	6.263	0.101	1.000	0.115	0.421
ATLANTIC UNDERSEA TEST AND EVALUATION CENTER, W. PALM BEACH, FLA.	0	2.000	0.000	0.000	0.000	0.025
NAVY ELECTRONIC SYSTEMS TEST FACILITY, PATUXENT RIVER, MD.	0	6.997	0.897	8.664	0.000	0.275
NAVY UNDERSEA R&D CENTER, SAN DIEGO, CALIF.	1154	73.500	6.536	206.117	21.045	76.738
NAVAL PERSONNEL R&D LAB, WASHINGTON, D.C.	852	22.944	2.502	14.295	0.102	0.296
NAVAL AEROSPACE MEDICAL RESEARCH LAB, PENSACOLA, FLA.	37619	316.890	33.457	684.772	36.703	42.274
NAVAL SUBMARINE MEDICAL RESEARCH LAB, NEW LONDON, CONN.	0	22.156	2.703	1.420	0.652	0.389
NAVY UNDERWATER SOUND LABORATORY, NEW LONDON, CONN.	126	96.787	9.604	12.893	2.791	1.366
TOTALS	1288852	11947.409	2510.232	17864.460	1013.430	700.531

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TABLE 5. AIR FORCE ROT+E ACTIVITIES. PROGRAM AND PERSONNEL DATA, FY 1978

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA									
	TOTAL	IN-HOUSE	TOTAL ROT+E	IN-HOUSE ROT+E	TOTAL MIL	PHD MIL	PHD CIV	PHD	TOTAL CIV	PROF MIL	PROF CIV		
MATERIALS LAB., WPAFB, OHIO	56.495	8.539	30.495	8.539	57	9	30	39	358	54	267		
AEROSPACE RESEARCH LABORATORIES, WPAFB, OHIO	13.893	8.761	12.856	7.524	81	11	57	68	228	61	108		
FRANK J. SEILER RESEARCH LAB., ACADENY, COLO.	8.527	8.527	8.527	8.527	24	14	13	1	14	20	3		
CAMBRIDGE RESEARCH LABS., L.G. HANSCOM FLD., MASS.	57.138	38.532	55.946	28.620	178	9	154	163	1054	76	685		
OFFICE OF RESEARCH ANALYSES, HOLLOMAN AFB, N.M.	8.888	8.888	8.888	8.888	15	27	2	5	27	10	16		
6571 AEROMEDICAL LAB., HOLLOMAN AFB, N.M.	1.932	1.932	1.932	1.932	57	27	14	7	27	23	11		
SCHOOL OF AVIATION MEDICINE, BROOKS AFB, TEX.	15.659	12.776	9.569	6.886	521	393	72	45	393	162	149		
6578 AEROSPACE MEDICAL RES. LAB., WPAFB, OHIO	8.938	5.286	7.432	3.788	126	166	27	26	166	88	96		
AEROSPACE MEDICAL LAB. (CLINICAL), LACKLAND AFB, TEX.	8.495	8.442	8.183	8.138	28	2	5	0	2	11	8		
ROME AIR DEVELOPMENT CENTER, GRIFFISS AFB, N. Y.	132.995	25.928	69.168	22.188	326	1215	2	11	1215	186	595		
AVIONICS LAB., WPAFB, OHIO	95.115	7.665	95.115	7.665	86	467	5	9	467	76	274		
HUMAN RESOURCES LAB., BROOKS AFB, TEX.	7.487	3.652	5.829	2.674	156	199	9	29	199	52	86		
WEAPONS LAB., KIRTLAND AFB, N.M.	55.791	12.313	55.581	12.291	629	385	47	12	385	423	183		
AEROPROXUSION LAB., WPAFB, OHIO	53.467	5.972	52.568	5.862	58	331	3	5	331	52	178		
FLIGHT DYNAMICS LAB., WPAFB, OHIO	52.286	13.917	51.779	13.917	88	626	18	2	626	82	338		
ROCKET PROPULSION LAB., EDWARDS AFB, CALIF.	39.798	13.977	37.485	11.734	267	415	17	11	415	124	118		
ARMAMENT LAB., EGLIN AFB, FLA.	17.848	6.221	17.848	6.221	140	231	9	7	231	185	148		
FLIGHT TEST CENTER, EDWARDS AFB, CALIF.	65.573	57.613	38.382	31.788	2971	1882	3	0	1882	267	115		
SPECIAL WEAPONS CENTER, KIRTLAND AFB, N.M.	39.488	35.878	19.346	15.346	1479	1154	20	3	1154	448	532		
AIR PROWING GROUND CENTER, EGLIN AFB, FLA.	318.893	113.853	74.533	59.922	4709	2739	11	11	2739	238	157		
MISSILE DEVELOPMENT CENTER, HOLLOMAN AFB, N.M.	61.495	55.617	41.878	36.866	1982	1578	48	8	1578	1	64		
ARNOLD ENGINEERING DEVELOPMENT CENTER, TENN.	62.623	4.637	48.523	8.888	95	158	1	1	158	1	141		
EASTERN TEST RANGE, PATRICK AFB, FLA.	237.714	40.428	164.796	18.428	1941	2146	34	1	2146	0	71		
SPACE & MISSILE TEST CENTER, VANDENBURG AFB, CALIF.	88.632	39.719	83.275	34.935	596	587	0	0	587	0	175		
TOTALS	1476.894	585.778	981.847	337.883	16610	16214	381	443	3338	4411			

TABLE 6. AIR FORCE ROT+E FACILITIES DATA, FY 1978

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
MATERIAUS LAB., WPAFB, OHIO	9	212.000	22.000	38.000	6.500	9.325
AEROSPACE RESEARCH LABORATORIES, WPAFB, OHIO	50	124.114	20.512	34.719	10.353	11.910
FRANK J. SEILER RESEARCH LAB., ACADEMY, COLO.	0	7.855	2.060	0.240	1.062	1.016
CAMBRIDGE RESEARCH LABS., L.G. HANSCOM FLD., MASS.	921	557.759	21.900	120.426	18.473	31.349
OFFICE OF RESEARCH ANALYSIS, HOLLOMAN AFB, N.M.	0	4.676	1.203	5.607	0.189	0.094
6571 AEROMEDICAL LAB., HOLLOMAN AFB, N.M.	45	61.000	8.000	1393.000	2.774	2.020
SCHOOL OF AVIATION MEDICINE, BROOKS AFB, TEX.	93	425.450	89.484	51.677	13.487	28.986
6570 AEROSPACE MEDICAL RES. LAB., WPAFB, OHIO	30	112.946	51.020	68.747	11.387	21.006
AEROSPACE MEDICAL LAB. (CLINICAL), LACKLAND AFB, TEX.	1	6.614	1.467	1.000	0.154	0.756
ROME AIR DEVELOPMENT CENTER, GRIFFISS AFB, N.Y.	2791	754.733	92.403	176.240	22.061	78.494
AVIONICS LAB., WPAFB, OHIO	215	195.045	5.304	160.520	11.207	10.845
HUMAN RESOURCES LAB., BROOKS AFB, TEX.	13	63.832	20.702	8.428	1.631	2.473
WEAPONS LAB., KIRTLAND AFB, N.M.	391	323.623	12.774	9.153	6.972	24.518
AEROPROPUSSION LAB., WPAFB, OHIO	40	368.500	70.400	220.700	13.091	13.612
FLIGHT DYNAMICS LAB., WPAFB, OHIO	90	537.130	56.600	26.000	22.900	10.427
ROCKET PROPUSSION LAB., EDWARDS AFB, CALIF.	54400	757.213	149.340	87.105	25.572	26.095
ARMAMENT LAB., EGLIN AFB, FLA.	41	50.100	51.490	36.410	4.082	2.431
FLIGHT TEST CENTER, EDWARDS AFB, CALIF.	279887	562.853	419.030	5232.053	170.070	707.099
SPECIAL WEAPONS CENTER, KIRTLAND AFB, N.M.	3057	228.021	334.514	1659.257	48.605	88.152
AIR PROVING GROUND CENTER, EGLIN AFB, FLA.	465209	653.221	805.840	6029.010	191.059	210.132
MISSILE DEVELOPMENT CENTER, HOLLOMAN AFB, N.M.	106998	933.701	212.795	4365.351	131.038	97.066
ARNOLD ENGINEERING DEVELOPMENT CENTER, TENN.	40119	1113.556	190.031	535.061	350.346	4.956
EASTERN TEST RANGE, PATRICK AFB, FLA.	10264	157.100	359.002	7325.003	372.075	649.666
SPACE + MISSILE TEST CENTER, VANDENBURG AFB, CALIF.	1546	31.543	340.962	2057.499	16.300	134.000
TOTALS	974210	8242.833	3436.449	30442.901	1465.364	1757.620

TABLE 7. ARMY RDT+E ACTIVITIES. PROGRAM AND PERSONNEL DATA, FY 1978

INSTALLATION	FUNDING DATA (MILLIONS \$)	PERSONNEL DATA									
		TOTAL					TOTAL				
		TOTAL	IN-HOUSE	RDT+E	IN-HOUSE	RDT+E	TOTAL	IN-HOUSE	RDT+E	IN-HOUSE	RDT+E
ARMED FORCES RADIOBIOLOGY RES. INSTITUTE BETHESDA, MC	3.428	3.428	3.428	2.697	2.697	2.697	67	67	145	20	41
TOTALS	3.428	3.428	3.428	2.697	2.697	2.697	67	67	145	20	41

TABLE 8. ARMY RDT+E FACILITIES DATA, FY 1978

INSTALLATION	SPACE AND PROPERTY			COST (MILLIONS \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			REAL		
	ACRES	LABORATORY	ADMIN	PROPERTY	EQUIPMENT	
ARMED FORCES RADIOBIOLOGY RES. INSTITUTE BETHESDA, MC	7	0.044	0.011	6.135	2.363	
TOTALS	7	0.044	0.011	6.135	2.363	

SUMMARY

DEPARTMENT OF DEFENSE R&D LABORATORIES

PROGRAM DATA FOR FY 1970 (ACTUAL)

	(MILLIONS \$)
TOTAL ANNUAL LABORATORY PROGRAM	2475.904
TOTAL IN-HOUSE PROGRAM	1309.656
TOTAL RDT+E PROGRAM	1695.565
TOTAL IN-HOUSE RDT+E	929.132
TOTAL ANNUAL OPERATING COST	334.174

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	9305	867	4013
CIVILIAN	58601	2548	23710
TOTAL	67906	3415	27723

PHYSICAL FACILITIES (END OF FY 1970)

ACRES.....	1243130
SPACE (THOUSANDS OF SQ FT)	
LABORATORY.....	24498.086
ADMINISTRATIVE.....	5414.776
OTHER.....	20188.210
TOTAL.....	50101.072
COST (MILLIONS \$)	
REAL PROPERTY.....	1157.781
EQUIPMENT.....	1189.605
TOTAL.....	2353.386

TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1970

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA					
	TOTAL	IN-HOUSE	TOTAL	IN-HOUSE	TOTAL	MIL	PHD	PHD	PHD	PROF
LAND WARFARE LAB., AMERSON, P.G., MD.	9.167	5.146	8.473	4.578	18	124	0	3	15	57
BEHAVIORAL SCIENCE RESEARCH LAB., WASHINGTON, D.C.	2.872	1.926	2.802	1.926	4	83	0	23	1	55
ENGINEER TOPOGRAPHIC LAB., FT. BELVOIR, VA.	12.514	5.071	12.329	4.886	11	242	1	10	7	124
ENGINEER WATERWAYS EXPERIMENT STATION, VICKSBURG, MISS.	20.063	18.573	11.952	10.462	36	1118	2	29	43	341
CONSTRUCTION ENGINEERING RESEARCH LAB., URBANA, ILL.	4.319	2.741	2.776	2.414	1	130	1	10	1	40
AFROMEDICAL RESEARCH LAB., FT. RUCKER, ALA.	1.216	1.216	0.790	0.790	36	19	16	1	31	2
INSTITUTE OF DENTAL RESEARCH, WALTER REED ARM., WASHINGTON, D.C.	1.074	1.074	0.495	0.495	63	25	2	1	32	0
MEDICAL BIOMECHANICAL RESEARCH LAB., WALTER REED ARM., WASHINGTON, D.C.	0.731	0.731	0.616	0.616	17	32	0	4	9	21
MEDICAL RESEARCH AND NUTRITION LAB., FITZSIMONS G.H., DENVER, COLO.	3.287	3.280	2.244	2.244	117	98	28	13	57	45
MEDICAL EQUIPMENT R&D LAB., FT. TOTTEN, FLUSHING, N.Y.	0.877	0.877	0.727	0.727	15	39	0	0	2	8
MEDICAL RESEARCH LAB., FT. KNOX, KY.	3.047	3.047	1.803	1.803	125	133	9	14	53	31
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE, NATICK, MASS.	3.310	3.310	2.630	2.630	86	116	22	25	86	57
WALTER REED ARMY INSTITUTE OF RESEARCH, WASHINGTON, D.C.	17.843	17.642	11.696	11.495	623	586	155	70	214	200
MEDICAL RESEARCH OF INFECTIOUS DISEASES, FT. DETRICK, MD.	5.978	5.059	3.780	2.859	318	89	45	8	48	19
LETTERMAN ARMY INSTITUTE OF RESEARCH, PRESIDIO OF SAN FRANCISCO, CAL.	2.569	2.569	2.532	2.532	3	111	2	5	4	33
AERONAUTICAL RESEARCH LAB., AMES RESEARCH CENTER, MOFFETT FIELD, CAL.	19.777	18.271	19.394	17.888	36	681	4	30	36	344
BALLISTIC RESEARCH LAB., ABERDEEN PROVING GROUND, MD.	2.349	1.211	2.012	1.031	5	46	2	3	8	20
COATING AND CHEMICAL LAB., ABERDEEN PROVING GROUND, MD.	6.731	5.840	6.036	5.145	47	212	4	19	69	75
COLD REGIONS R&E LAB., HANOVER, N.H.	13.810	32.013	23.004	17.350	10	1318	5	27	11	616
HARRY DIAMOND LABS., WASHINGTON, D.C.	2.916	2.488	2.760	2.332	33	95	3	10	26	53
HUMAN ENGINEERING LABS., ABERDEEN PROVING GROUND, MD.	16.110	12.454	11.127	9.495	12	652	6	54	12	211
MATERIALS AND MECHANICS RESEARCH CENTER, WATERTOWN, MASS.	2.781	2.628	2.553	2.400	40	75	3	14	42	51
NUCLEAR DEFENSE LAB., EDGEMOOD ARSENAL, MD.	27.717	22.579	15.274	12.264	154	1305	10	99	78	503
NATICK LABS., NATICK, MASS.	22.908	5.545	22.904	5.541	50	306	0	0	14	132
AVIATION MATERIEL LABS., FT. EUSTIS, VA.	170.776	89.638	154.025	75.570	935	3155	18	121	307	1557
ELECTRONICS R&D LAB., FT. MONMOUTH, N.J.	79.263	39.294	71.877	31.908	67	982	6	46	46	702
MISSILE COMMAND R&D LABS., REDSTONE ARSENAL, ALA.	71.914	24.160	35.313	16.755	59	1425	2	16	37	491
MOBILITY EQUIPMENT R&D CENTER, FT. BELVOIR, VA.	34.882	23.354	26.965	15.437	23	1657	1	29	23	1349
FRANKFORD ARSENAL LABS., PHILADELPHIA, PA.	93.953	37.351	63.800	28.114	76	2002	3	54	69	1131
PICATINNY ARSENAL LABS., DODGE, N.J.	25.347	24.206	20.411	19.999	209	1434	25	100	108	388
BIOLOGICAL LABS., FT. DETRICK, MD.	43.031	38.768	32.516	28.253	245	1232	66	70	213	675
EDGEMOOD ARSENAL LABS., EDGEMOOD ARSENAL, MD.	23.594	11.341	17.638	7.734	18	796	-0	26	15	291
ROCK ISLAND ARSENAL LABS., ROCK ISLAND, ILL.	10.011	9.447	4.815	4.355	4	452	-0	2	42	176
WATERVLIET ARSENAL LABS., WATERVLIET, N.Y.	72.846	26.194	25.945	13.438	19	1039	1	5	16	432
TANK-AUTOMOTIVE COMMAND LABS., WARREN, MICH.	14.099	7.853	10.044	6.590	14	254	0	2	15	187
ARMY MATERIAL SYSTEMS AND ANALYSIS AGENCY, APG, MD.	890.990	507.824	634.629	372.547	3613	22079	465	1018	1799	10434
TOTALS										

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TABLE 2A. ARMY R&D FACILITIES DATA, FY 1972

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
LAND WARFARE LAB., ABERDEEN P.G., MD.	88	37.311	2.655	12.628	0.679	0.684
BEHAVIORAL SCIENCE RESEARCH LAB., WASHINGTON, D.C.	0	26.816	4.867	1.893	0.166	1.825
ENGINEER TOPOGRAPHIC LAB., FT. BELVOIR, VA.	0	44.814	9.138	2.668	0.000	10.861
ENGINEER WATERWAYS EXPERIMENT STATION, VICKSBURG, MISS.	210	1369.000	345.000	224.301	14.078	28.031
CONSTRUCTION ENGINEERING RESEARCH LAB., URBANA, ILL.	15	68.875	32.875	0.000	3.481	1.633
AEROMEDICAL RESEARCH LAB., FT. RUCKER, ALA.	0	21.495	5.948	7.470	0.191	0.930
INSTITUTE OF DENTAL RESEARCH, WALTER REED AHC, WASHINGTON, D.C.	0	5.648	5.520	1.578	0.000	0.535
MEDICAL BIOMECHANICAL RESEARCH LAB., WALTER REED AHC, WASHINGTON, D.C.	0	11.463	1.822	0.000	0.000	0.368
MEDICAL RESEARCH AND NUTRITION LAB., FITZSIMONS G.H., DENVER, COLO.	0	82.283	5.138	16.620	3.391	4.416
MEDICAL EQUIPMENT R&D LAB., FT. TOTTEN, FLUSHING, N.Y.	0	7.864	3.577	31.709	0.545	0.466
MEDICAL RESEARCH LAB., FT. KNOX, KY.	19	86.542	5.368	26.700	0.938	3.033
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE, NATICK, MASS.	1178	70.157	12.356	30.617	6.902	2.616
WALTER REED ARMY INSTITUTE OF RESEARCH, WASHINGTON, D.C.	0	353.200	57.500	0.000	0.000	12.511
MEDICAL RESEARCH OF INFECTIOUS DISEASES, FT. DETRICK, MD.	15	88.143	17.622	97.731	8.236	1.930
LETTERMAN ARMY INSTITUTE OF RESEARCH, PRESIDIO OF SAN FRANCISCO, CAL.	0	107.000	12.000	1.600	0.052	2.472
AERONAUTICAL RESEARCH LAB., AMES RESEARCH CENTER, MOFFETT FIELD, CAL.	0	9.621	2.207	0.000	0.000	0.000
BALLISTIC RESEARCH LABS., ABERDEEN PROVING GROUND, MD.	3360	198.717	41.500	24.030	11.065	16.653
COATINGS AND CHEMICAL LAB., ABERDEEN PROVING GROUND, ME.	1	16.625	1.868	4.268	0.200	0.439
COLD REGIONS REE LAB., HANOVER, N.H.	769	19.013	9.048	108.415	3.896	4.435
HARRY DIAMOND LABS., WASHINGTON, D.C.	2130	296.887	49.555	288.360	6.431	18.548
HUMAN ENGINEERING LABS., ABERDEEN PROVING GROUND, MD.	14	26.598	17.605	24.658	0.608	2.957
MATERIALS AND MECHANICS RESEARCH CENTER, WATERTOWN, MASS.	48	410.100	122.400	129.000	14.770	11.307
NUCLEAR DEFENSE LAB., ENG WOOD ARSENAL, MD.	109	35.672	32.599	3.795	1.385	5.592
NATICK LABS., NATICK, MASS.	3206	525.200	69.320	365.680	35.154	11.493
AVIATION MATERIAL LABS., FT. EUSTIS, VA.	100	75.393	38.890	15.788	1.469	5.521
ELECTRONICS R&D LAB., FT. MONMOUTH, N.J.	940	850.625	82.803	581.554	41.526	160.764
MISSILE COMMAND R&D LABS., REDSTONE ARSENAL, ALA.	11000	695.768	128.907	90.577	23.650	34.000
MOBILITY EQUIPMENT R&D CENTER, FT. BELVOIR, VA.	1063	246.637	200.490	348.865	20.525	29.718
FRANKFORD ARSENAL LABS., PHILADELPHIA, PA.	22	558.400	134.000	557.000	0.970	8.936
PICATINNY ARSENAL LABS., DUNEL, N.J.	5052	613.422	860.038	2368.504	71.747	47.846
BIOLOGICAL LABS., FT. DETRICK, MD.	1205	184.639	114.055	829.150	68.929	19.596
EDGEMOND ARSENAL LABS., EDGEMOND ARSENAL, MD.	4055	513.526	146.425	184.523	18.591	0.922
ROCK ISLAND ARSENAL LABS., ROCK ISLAND, ILL.	18	352.462	82.525	71.097	1.463	9.800
WATERVLIET ARSENAL LABS., WATERVLIET, N.Y.	4	106.268	23.250	0.000	1.252	3.336
TANK-AUTOMOTIVE COMPAID LABS., WARREN, MICH.	1125	315.908	0.000	0.000	13.103	7.330
ARMY MATERIAL SYSTEMS AND ANALYSIS AGENCY, APG, MD.	4	9.800	19.421	3.685	0.045	3.331
TOTALS	38233	9380.108	2697.556	6454.544	377.198	474.957

x
x

TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1978

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL IN-HOUSE	TOTAL RDT+E	IN-HOUSE RDT+E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PHD	PROF MIL	PROF CIV			
NAVAL UNDERWATER WEAPONS R&E STATION, NEWPORT, R.I.	33.625	21.985	9.894	6.629	64	1568	0	20	13	682	368			
NAVAL AIR ENGINEERING CENTER, PHILADELPHIA, PA.	74.762	37.360	7.359	4.894	81	2231	1	0	20	20	368			
NAVAL SHIP R&D CENTER, WASHINGTON, D.C.	61.515	36.454	45.933	25.994	25	1833	3	62	25	748	748			
NAVAL RESEARCH LABORATORY, WASHINGTON, D.C.	181.714	94.915	89.133	82.334	90	3626	3	363	18	1312	1312			
NAVAL WEAPONS LABORATORY, DAHLGREN, VA.	63.595	48.381	20.898	16.648	122	2499	0	54	30	914	914			
NAVAL ELECTRONICS LABORATORY CENTER, SAN DIEGO, CALIF.	42.515	40.148	32.707	30.468	126	1412	3	50	45	659	659			
NAVAL WEAPONS CENTER, CHINA LAKE, CALIF.	182.883	182.173	76.359	63.547	723	4851	0	92	26	1489	1489			
NAVAL ORDNANCE LABORATORY, WHITE OAK, MD.	70.866	54.895	53.888	40.627	53	2987	1	118	27	1816	1816			
NAVAL SHIP R&D LAB., PANAMA CITY, FLA.	14.921	12.552	10.821	8.959	163	614	4	11	15	241	241			
NAVAL TRAINING DEVICES CENTER, ORLANDO, FLA.	88.964	22.126	17.922	10.648	49	1148	1	18	23	384	384			
NAVAL SHIP R&D LAB., ANNAPOLIS, MD.	21.634	20.824	17.379	15.984	6	968	0	31	4	446	446			
NAVAL MEDICAL RESEARCH UNIT NO.3, CAIRO, EGYPT	1.752	1.758	1.372	1.372	33	117	7	12	11	18	18			
NAVAL MEDICAL FIELD RESEARCH LAB., CAMP LEJEUNE, N.C.	1.113	1.113	0.755	0.755	29	52	7	3	9	9	9			
NAVAL AIR DEVELOPMENT CENTER, JOHNSVILLE, PA.	88.232	56.205	68.158	44.925	438	2251	8	24	94	909	909			
NAVAL MEDICAL RESEARCH UNIT NO.4, GREAT LAKES, ILL.	1.216	1.216	0.595	0.595	34	45	7	1	13	8	8			
NAVY CLOTHING AND TEXTILE RESEARCH UNIT, NATICK, MASS.	11.538	7.972	5.884	4.992	2	66	0	0	0	24	24			
NAVAL CIVIL ENGINEERING LABORATORY, PORT HUENEME, CAL.	1.945	1.905	1.325	1.325	16	365	2	32	8	177	177			
NAVAL MEDICAL RESEARCH UNIT NO.2, TAIPEI, TAIWAN	0.966	0.966	0.836	0.836	9	52	0	7	6	18	18			
NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT, SAN DIEGO, CALIF.	3.136	3.136	2.862	2.862	35	195	0	30	35	182	182			
NAVAL PERSONNEL RESEARCH ACTIVITY, SAN DIEGO, CALIF.	6.508	6.508	4.555	4.555	172	745	36	43	81	119	119			
NAVAL MEDICAL RESEARCH INSTITUTE, NMHC, BETHESDA, MD.	08.582	19.247	34.116	24.838	371	1462	3	65	27	615	615			
NAVAL UNDERSEA R&D CENTER, SAN DIEGO, CALIF.	3.997	3.997	3.156	3.156	24	231	1	6	14	135	135			
NAVAL PERSONNEL R&D LAB, WASHINGTON, D.C.	3.599	3.599	3.192	3.192	26	114	7	17	18	32	32			
NAVAL AEROSPACE MEDICAL RESEARCH LAB, PENSACULA, FLA.	1.796	1.796	1.226	1.226	23	66	7	11	12	35	35			
NAVAL SUBMARINE MEDICAL RESEARCH LAB, NEW LONDON, GROTON, CONN.	35.852	26.896	23.886	17.778	61	1346	0	34	18	586	586			
NAVAL UNDERWATER SOUND LABORATORY, NEW LONDON, CONN.	941.643	646.757	553.888	417.974	2803	10346	128	1186	586	18975	18975			
TOTALS														

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TABLE 4A. NAVY R&D FACILITIES DATA, FY 1972

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)			SPACE AND PROPERTY		COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT	REAL PROPERTY	EQUIPMENT
NAVAL UNDERWATER WEAPONS RES STATION, NEWPORT, R.I.	282	184.148	133.959	355.278			13.951	13.262
NAVAL AIR ENGINEERING CENTER, PHILADELPHIA, PA.	560	1394.866	157.635	727.159			33.528	19.898
NAVAL SHIP R&D CENTER, WASHINGTON, D.C.	208	811.955	132.118	584.842			58.575	31.459
NAVAL RESEARCH LABORATORY, WASHINGTON, D.C.	278	2824.778	235.998	694.562			68.694	67.167
NAVAL WEAPONS LABORATORY, DAHLGREN, VA.	4498	482.647	72.296	832.778			32.469	29.994
NAVAL ELECTRONICS LABORATORY CENTER, SAN DIEGO, CALIF.	1944	571.413	113.884	176.445			14.986	29.968
NAVAL WEAPONS CENTER, CHINA LAKE, CALIF.	1895895	1684.971	228.422	5215.541			227.449	84.381
NAVAL ORDNANCE LABORATORY, WHITE OAK, MD.	1866	355.983	75.836	739.599			46.978	28.321
NAVAL SHIP R&D LAB., PANAMA CITY, FLA.	641	164.384	35.296	292.336			16.358	18.456
NAVAL TRAINING DEVICES CENTER, ORLANDO, FLA.	60	91.388	201.356	121.568			2.794	3.183
NAVAL SHIP R&D LAB., ANnapolis, MD.	66	337.184	42.888	128.888			13.411	8.656
NAVAL MEDICAL RESEARCH UNIT NO. 3, CAIRO, EGYPT	5	25.888	7.888	44.888			8.791	8.561
NAVAL MEDICAL FIELD RESEARCH LAB., CAMP LEJEUNE, N.C.	1	28.226	8.655	15.598			8.498	8.088
NAVAL AIR DEVELOPMENT CENTER, JOHNSVILLE, PA.	794	918.488	97.848	298.743			22.163	38.418
NAVAL MEDICAL RESEARCH UNIT NO. 4, GREAT LAKES, ILL.	1	28.182	11.576	13.649			8.365	8.398
NAVY CLOTHING AND TEXTILE RESEARCH UNIT, NATICK, MASS.	2	14.888	7.888	3.888			8.275	8.493
NAVAL CIVIL ENGINEERING LABORATORY, PUNY HUENHUE, CAL.	22	128.352	21.977	31.548			4.956	4.982
NAVAL MEDICAL RESEARCH UNIT NO. 2, TAIPEI, TAIWAN	2	32.788	38.674	17.826			8.888	8.738
NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT, SAN DIEGO, CALIF.	4	11.177	4.588	8.888			8.888	8.218
NAVAL PERSONNEL RESEARCH ACTIVITY, SAN DIEGO, CALIF.	1	47.388	4.988	8.888			8.218	8.254
NAVAL MEDICAL RESEARCH INSTITUTE, NIMC, BETHESDA, MD.	37619	166.264	12.945	18.828			3.775	3.235
NAVAL UNDERSEA R&D CENTER, SAN DIEGO, CALIF.	4	316.894	13.457	684.722			36.783	42.274
NAVAL PERSONNEL R&D LAB, WASHINGTON, D.C.	4	22.156	2.703	1.420			8.652	8.389
NAVAL AEROSPACE MEDICAL RESEARCH LAB., PENSACOLA, FLA.	3	96.787	9.684	12.893			2.791	1.366
NAVAL SUBMARINE MEDICAL RESEARCH LAB, NEW LONDON, GROTON, CONN.	2	48.297	1.753	8.888			1.493	1.493
NAVY UNDERWATER SOUND LABORATORY, NEW LONDON, CONN.	126	298.153	33.887	218.430			13.989	15.826
TOTALS	1145769	13764.848	1684.879	11139.948			683.662	476.222

TABLE 1A. AIR FORCE R+D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1970

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA						
	TOTAL		IN-HOUSE		TOTAL	MIL		PHD		TOTAL	PROF
	TOTAL	AD+R	IN-HOUSE	AD+R		MIL	CIV	MIL	CIV		
MATERIALS LAB., WPAFB, OHIO	56.495	0.539	0.539	0.539	57	358	9	39	54	267	CIV
AEROSPACE RESEARCH LABORATORIES, WPAFB, OHIO	13.893	12.656	0.761	7.524	61	228	11	37	61	188	
FRANK J. REILER RESEARCH LAB., ACADEMY, CALIF.	0.527	0.527	0.527	0.527	24	14	13	1	28	685	
CAMBRIDGE RESEARCH LAB., L.G. HAYSCOM FLD., MASS.	57.138	55.846	30.532	28.624	178	854	9	154	76	11	
6571 AEROMEDICAL LAB., HOLLAMAN AFB, N.M.	1.932	1.482	1.932	1.881	57	27	14	7	23	169	
SCHOOL OF AVIATION MEDICINE, HADDOCK AFB, TEX.	15.659	9.569	12.776	6.686	521	393	72	45	162	96	
6574 AEROSPACE MEDICAL RES. LAB., WPAFB, OHIO	0.934	7.432	5.206	3.708	126	166	27	26	88	11	
AEROSPACE MEDICAL LAB. (CLINICAL), LACKLAND AFB, TEX.	0.495	0.183	0.442	0.138	28	2	5	0	11	595	
ROME AIR DEVELOPMENT CENTER, GRANTISS AFB, N.Y.	132.995	69.168	25.926	22.188	320	1215	2	11	186	274	
AVIONICS LAB., WPAFB, OHIO	95.115	95.115	7.665	7.665	150	467	5	9	52	86	
HUMAN RESOURCES LAB., WRIGHT AFB, N.M.	7.647	5.829	3.632	2.674	629	199	9	29	423	193	
WEAPONS LAB., WRIGHT AFB, N.M.	55.791	55.581	12.313	12.291	58	331	3	5	42	338	
AERODYNAMICS LAB., WPAFB, OHIO	52.286	51.779	13.917	13.917	88	626	14	2	124	118	
FLIGHT DYNAMICS LAB., WPAFB, OHIO	39.198	37.485	13.977	11.734	267	415	17	11	185	148	
ROCKET PROPULSION LAB., EDWARDS AFB, CALIF.	17.948	17.948	6.221	6.221	140	231	9	7	157	1871	
ARMAMENT LAB., GOLIY AFB, FLA.	688.888	569.771	157.957	139.183	2622	6831	262	414	1587	1871	
TOTALS											

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TABLE 6A. AIR FORCE R+D FACILITIES DATA, FY 1970

INSTALLATION	ACRES	SPACE AND PROPERTY			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
MATERIALS LAB., WPAFB, OHIO	9	212.200	22.000	38.000	6.500	9.325
AEROSPACE RESEARCH LABORATORIES, WPAFB, OHIO	50	124.114	28.512	34.719	10.353	11.910
FRANK J. SEILER RESEARCH LAB., ACADEMY, COLO.	0	7.855	2.860	0.240	1.062	1.016
CAMBRIDGE RESEARCH LAB., L.G. HANSCOM FLD., MASS.	921	557.759	21.900	120.426	18.473	31.349
6571 AEROMEDICAL LAB., HULLMAN AFB, N.M.	45	61.000	8.000	1393.000	2.774	2.020
SCHOOL OF AVIATION MEDICINE, BROOKS AFB, TEX.	93	425.450	89.484	51.677	13.487	20.986
6576 AEROSPACE MEDICAL RES. LAB., WPAFB, OHIO	30	112.946	51.020	68.747	11.387	21.806
AEROSPACE MEDICAL LAB. (CRITICAL), LACKLAND AFB, TEX	1	6.614	1.467	1.800	3.154	8.756
ROME AIR DEVELOPMENT CENTER, GRIFFISS AFB, N.Y.	2791	754.733	92.403	176.240	22.861	78.494
ATONICS LAB., WPAFB, OHIO	215	195.045	5.304	160.528	11.287	10.845
HUMAN RESOURCES LAB., BROOKS AFB, TEX.	13	65.832	20.702	8.428	1.831	2.473
WEAPONS LAB., KIRTLAND AFB, N.M.	391	323.623	12.774	9.153	6.972	24.518
AERUPROPULSION LAB., WPAFB, OHIO	40	368.580	70.400	220.700	13.091	13.612
FLIGHT DYNAMICS LAB., WPAFB, OHIO	90	537.130	56.600	26.000	22.900	18.427
ROCKET PROPULSION LAB., EDWARDS AFB, CALIF.	54400	757.213	149.348	87.165	29.572	26.095
ARMAMENT LAB., EGLIN AFB, FLA.	41	50.180	51.490	36.410	4.082	2.431
TOTALS	59130	4558.474	684.264	2433.233	176.786	276.063

INSTALLATION LAND WARFARE LABORATORY, ABERDEEN PROVING GROUND, MD.

CO COL R A AXELSON

TECH DIR DR R D SHELTON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	8.473	6.815
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.497	2.450
TOTAL OTHER	0.197	0.233
TOTAL ANNUAL LAB	9.167	6.698
TOTAL IN-HOUSE	5.146	5.284
TOTAL IN-HOUSE RDT+E	4.578	4.715
ANNUAL OPERATING COST	2.085	2.348

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	18	0	15		3
CIVILIAN	124	3	57		67
TOTAL	142	3	72		70

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
80	37.311	2.655	12.628	52.594	0.679	0.684

...MISSION
TO PROVIDE A CENTRALIZED QUICK REACTION RESEARCH AND DEVELOPMENT FACILITY FOR ACCOMPLISHING DEVELOPMENT OF SPECIALIZED MILITARY ITEMS AND FOR THE GENERATION OF NEW IDEAS FOR SUCH MATERIAL.

...CURRENT IMPORTANT PROGRAMS
HELICOPTER NAVIGATION
EXPLOSIVES DETECTION
PERSONNEL DETECTION
POSITION MARKING
SURVIVAL TECHNIQUES AND EQUIPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES
THE SCOPE OF THE LABORATORY MISSION WAS BROADENED IN FY70 TO ELIMINATE GEOGRAPHICAL RESTRICTIONS. THIS BROADENED MISSION IS COMPLETELY COMPATIBLE WITH THE LABORATORY'S IN-HOUSE CAPABILITY IN ALL MAJOR SCIENTIFIC AREAS. WITH 56 PROFESSIONAL PERSONNEL THE ORGANIZATION CONTAINS 7 SMALL WELL EQUIPPED WORKING LABS IN COMMUNICATIONS/ELECTRONICS, MUNITIONS, MOBILITY, ENVIRONMENT AND SURVIVAL, APPLIED CHEMISTRY, APPLIED PHYSICS AND BIOLOGICAL SCIENCES. FURTHER, THE LABORATORY HAS IN-HOUSE DESIGN AND PROTOTYPE FABRICATION CAPABILITY IN METALS AND WOOD. THE ORGANIZATION IS ASSIGNED AN EIGHTY ACRE TEST FACILITY FOR DEVELOPMENTAL TESTING OF PERTINENT ITEMS AND IS LOCATED AT APG, MD., WHERE MANY MAJOR TESTING FACILITIES ARE READILY AVAILABLE.

NOT REPRODUCIBLE

INSTALLATION

BEHAVIORAL SCIENCE RESEARCH LABORATORY, WASHINGTON, D. C.

DIR J E UPLANDER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+I	2.882	2.649
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	2.882	2.649
TOTAL IN-HOUSE	1.926	2.003
TOTAL IN-HOUSE RDT+E	1.926	2.003
ANNUAL OPERATING COST	0.259	0.190

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF	NO.4- PROF
MILITARY	4	0	1	3
CIVILIAN	83	23	55	28
TOTAL	87	23	56	31

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	26.816	4.367	1.893	32.776	0.166	1.825

...MISSION

RSCH IN BEHAVIORAL SCI AND OPS RSCH SUPPORTING BROAD AREAS OF PERS MGMT HUM PERF EXPERIMENTATION AND MANNED SYS RSCH. RSCH CONDUCTED IN AND FOR DEPT ARMY TO MEET OBJ OF ARMY-WIDE SIGNIFICANCE AND RSCH DIRECTED TOWARD OPTIMAL EMPLOYMENT OF ARMY PERS IN VARIETY OF MILITARY SETTINGS.

...CURRENT IMPORTANT PROGRAMS

HUMAN FACTORS RSCH ON CAREER DEVELOP OF OFFICER LEADERS
RSCH ON SCREENING AND DIFFERENTIAL CLASSIFICATION OF EM
EVAL ALTERNATIVE MANP POLS IN PERS OPNS THROUGH MODELS
RSCH ON BEH FUNCTIONS OF CRITICAL HUM PERF IN NT OPNS
RSCH ON MAN MACHINE FUNCTIONS IN INTELL PROCESSING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROGRAM COMPRISES 4 RSCH AREAS, (1)PERS MGMT RSCH-SELECTION. THIS EFFORT CONCERNED WITH PRED INDIV HUM PERF EFFECTIVENESS. (2)PERS MGMT RSCH--MANPWR MGMT, CONCERNED WITH EVAL AND SEL PERS MGMT POLS THRU OPNS RSCH MODELING. (3)HUM PERF EXPERIMENTATION. CONCERNED WITH IMPROVING FUNCTIONAL PORTIONS OF PERF--CRIT BEH IN JOBS. MOBILE, FULLY AUTOMATED, ON-LINE MAGNETIC TAPE SYSTEM RECORDS AUTOMATICALLY IN REAL TIME TARGET ACQUIS RESPONSES AND SEARCH BEH OF SOLDIERS INVOLVED IN NT OPNS EXPERIMENTATION AND PROVIDES RAPID FEEDBACK FOR MIL USERS. (4)MANNED SYSTEMS RSCH IMPRVS TOTAL SYSTEMS PERFORMANCE AS RELATES TO HUMAN PERFORMANCE--GROUPS OF JOBS. AUTOMATED INFO SYST LAB PROVIDES HIGHLY FLEX AND FUNCTIONAL ACTIVITY FOR RSCH IN SURVEILLANCE, COMMAND AND INTELL SYSTEMS. VARIOUS CONFIGS OF SYST COMPONENTS MAKE POSSIBLE INTERACTIONS AND TRADE OFFS.

INSTALLATION ENGINEER TOPOGRAPHIC LABORATORY, FT. BELVOIR, VA.

CO COL JOHN R OSWALT

TECH DIR GILBERT G LORENZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	12.329	11.580
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.185	0.330
TOTAL ANNUAL LAB	12.514	11.910
TOTAL IN-HOUSE	5.371	5.502
TOTAL IN-HOUSE RDT+E	4.886	5.164
ANNUAL OPERATING COST	0.660	0.660

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	11	1	7		4
CIVILIAN	242	12	124		118
TOTAL	253	11	131		122

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2	44.014	9.130	2.660	55.804	0.002	10.861

...MISSION

PRINCIPAL FIELD ACTIVITY OF THE ARMY FOR ACCOMPLISHING RESEARCH AND DEVELOPMENT OF EQUIPMENT, PROCEDURES AND TECHNIQUES APPLICABLE TO THE TOPOGRAPHIC SCIENCES TO INCLUDE MAPPING, GEODESY AND MILITARY GEOGRAPHIC INFORMATION.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF SEMI-AUTOMATIC CARTOGRAPHIC EQUIPMENT.
DEVELOPMENT OF AN ALL-WEATHER RADAR MAPPING SYSTEM.
DEVELOPMENT OF MILITARY GEOGRAPHIC INTELLIGENCE CONCEPTS AND SYSTEMS.
DEVELOPMENT OF A TOPOGRAPHIC INFORMATION DATA BANK.
DEVELOPMENT OF FIELD SURVEYING AND POINT POSITIONING EQUIPMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE US ARMY ENGINEER TOPOGRAPHIC LABORATORIES PERFORMS BASIC AND APPLIED RESEARCH, AND EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT PERTAINING TO TOPOGRAPHIC MAPPING, GEODESY, SURVEYING, GEOGRAPHY AND MILITARY GEOGRAPHIC INTELLIGENCE. IT CARRIES OUT A PROGRAM WHICH CONSISTS OF BOTH INTERNAL AND CONTRACTUAL EFFORTS ADDRESSING THE FEASIBILITY OF CONCEPTS AS WELL AS THE FABRICATION OF PROTOTYPE AND ENGINEERING EQUIPMENT SATISFYING BOTH GENERAL AND SPECIFIC MILITARY FIELD AND BASE PLANT REQUIREMENTS.

INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STATION, VICKSBURG, MISS.

CO COL ERNEST D PEIXOTTO

TECH DIR F R BROWN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	11.952	13.116
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.389	0.368
TOTAL OTHER	7.722	6.916
TOTAL ANNUAL LAB	20.063	20.400
TOTAL IN-HOUSE	18.573	19.278
TOTAL IN-HOUSE RDT+E	10.462	11.994
ANNUAL OPERATING COST	3.683	3.880

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	36	2	43		0
CIVILIAN	1118	29	341		777
TOTAL	1154	31	384		777

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2100	1369.000	345.000	224.301	1938.301	14.078	20.031

...MISSION

MIL+CIV FUNDED ENGR RSCH, DEV INVESTIGATION IN HYD, FLEX+EXPEDIENT PAVEMENTS, SOILS, CONCRETE, NUC WPN EFF, VEH MOBILITY+ENVIRONMENTAL ASPECTS OF MIL OP. CONSULTANT SVC+TECH LIBRARY. TECH SURVL OF CEMENT+POZZOLAN TESTING PROGRAM. SERVES CE, AMC, DASA, AEC, OGD, AF, NAVY + OTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS

FORMULATION OF NEW+IMP ENG CRITERIA ON ROADS, STORAGE AREAS, HELIPORT+AIRFIELDS. HYD+ATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE+STRUC HVD PROBLEMS. NUC & HE RSCH TO DEV CRITERIA FOR ED OF PROTECTIVE STRUC BOTH UGND+UNTR. INVES MEANS OF ACQUIRING TERRAIN DATA BY VAR SENSNG+MEASURNG DEVICE. RSCH+DEV OF EXPEDIENT+FLEX PAVEMENTS FOR MULTI-WHEEL LDG GEARS OF HV ACFT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CDT RDT+E FOR MANY SPONSORS. PERF GEN INVES IN FLD OF HVD, SOIL MECH, CONCRETE, MOBILITY OF MIL VEH NUCWPN EFF+FLEX PAVEMENT. THROUGH BR+APPLIED RSCH IN THESE FLD+RLT FLD, THE DEV OF METHODS+TECHNIQUES+THE TESTING OF MAT+ EQUIP, IT ASST IN ACCOMPMT OF THE CIV WORKS+MIL MSN OF CE. WES OCCUPIES TWO RESERVATIONS CNTN BLDG, TEST SITES, SPECI EQUIP+OTHER PLANT FAC. TEST SITES FOR SP PURPOSES ARE MAINT IN OTHER AREAS ON A PERM OR TEMP BASIS. FAC INCL FLUMES OF DIFF TYPES+SIZES, WAVE+TIDE GENR MACH, DRILL EQUIP, FULLY EQUIPED SOILS LAB, X-RAY DIFFRACTION AND SPECTROSCOPY APPAR, FULLY EQUIPED CONCRETE LAB, LARGE+SMALL BLAST LOAD GENERATOR, 200K DYNAMIC LOADER, MOBILITY TEST CARTS, SINGLE+MULTIPLE WHEEL LOAD CARTS FOR TFC, SUR EFF BLAST FAC, HIGH+LOW FREQ VIBRATORS, PHYS TREATMENT LAB, CALBR LAB, ELCT LAB, A GE-437 COMPUTER + A TECHNICAL LIBRARY.

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LABORATORY, URBANA, ILL.

DIR E S TOWNSLEY

DEP DIR DR L R SHAFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.776	3.367
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.542	0.540
TOTAL OTHER	0.001	0.000
TOTAL ANNUAL LAB	3.319	3.907
TOTAL IN-HOUSE	2.741	3.412
TOTAL IN-HOUSE RDT+E	2.414	2.932
ANNUAL OPERATING COST	0.758	0.885

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	1	1	1	0
CIVILIAN	130	10	40	90
TOTAL	131	11	41	90

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	68.875	32.175	0.002	100.952	3.481	1.633

...MISSION

TO PLAN, EXECUTE AND EVALUATE RESEARCH REQUIRED FOR DETERMINING THE OPT COMBINATION OF ENGINEERING, DESIGN AND CONSTRUCTION IN PROVIDING FACILITIES FOR THE MILITARY ESTABLISHMENT AND OTHER AGENCIES, AND TO DISSEMINATE THE RESULTS OF SUCH RESEARCH.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF MATERIALS FOR PERMANENT CONSTRUCTION
DEVELOPMENT OF IMPROVED DESIGN, CONSTRUCTION AND MANAGEMENT TECHNIQUES
DEVELOPMENT OF MILITARY HOUSING SYSTEMS
SOCIO-TECHNOLOGICAL-ECONOMIC FORECASTING METHODOLOGY FOR MILITARY CONSTR
DEVELOPMENT OF ENGINEER FUNCTIONAL COMPONENTS SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1000K LOADING SYSTEM 500K UNIV TESTING MACH TEST+EVAL INSTRUMENTATION
DATA RECORD+ANAL EQUIPMENT 10MW ELECT LOAD BANK+INST X-RAY EQUIP SEMI-AUTO WELDING EQUIP 28 HYDRAULIC RAMS-560 TONS CAP PAVEMENT MODELS.
SYSTEMS BUILDING METHODS COMPUTER-BASED DESIGN AND CONSTRUCTION MANAGEMENT TECHNIQUES COMPUTER UTILITY PAVEMENTS SYSTEMS DESIGN METHODS UTILITY SYSTEM DESIGN TECHNIQUES DEVELOPMENT OF HARDENED FACILITIES DISASTER ENGINEERING DEVELOPMENT OF DATA COLLECTION + ANALYSIS TECHNIQUES ECOLOGICAL+ENVIRONMENTAL MANAGEMENT METHODS HOUSING DEVELOPMENT STRUCTURAL ANALYSIS.

INSTALLATION INSTITUTE OF SURGICAL RESEARCH, BROOKE AMC, FT. SAM HOUSTON, TEX.

CO LTC BASIL A PRUITT JR

TECH DIR DR ARTHUR D MASON JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.060	1.275
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.119	1.068
TOTAL ANNUAL LAB	2.179	2.343
TOTAL IN-HOUSE	2.179	2.343
TOTAL IN-HOUSE RDT+E	1.060	1.275
ANNUAL OPERATING COST	0.086	0.095

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	113	24	59	54
CIVILIAN	74	3	21	53
TOTAL	187	27	80	107

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
1	11.662 0.802 28.708 41.172	0.412 0.739

...MISSION

CONDUCT BOTH CLINICAL AND LABORATORY STUDIES IN TREATMENT OF THERMAL AND TRAUMATIC INJURIES. PROVIDE CARE FOR PATIENTS WITH THESE TYPES OF INJURIES. TRAIN OTHERS IN CARE OF SUCH PATIENTS.

...CURRENT IMPORTANT PROGRAMS

STUDY OF POSTBURN HEMODYNAMIC AND PULMONARY CHANGES. EVALUATION AND SYNTHESIS OF TOPICAL AGENTS TO CONTROL INFECTION. STUDY OF ACUTE RENAL FAILURE AND RENAL PHYSIOLOGY. STUDY OF POSTBURN HEMATOLOGY AND IMMUNOLOGY. METABOLIC CHANGES FOLLOWING BURNS AND EFFECTS OF HYPERALIMENTATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATES 60 BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES CLINICAL LABORATORY SUPPORT WITH CAPABILITIES IN THE FIELD OF PATHOLOGY (INCLUDING USE OF ELECTRON MICROSCOPE), MICROBIOLOGY, EXPERIMENTAL SURGERY, RENAL PHYSIOLOGY AND BIOCHEMISTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP AND SURGICAL LIBRARY.

INSTALLATION AEROMEDICAL RESEARCH LABORATORY, FT. RUCKER, ALA.

CO COL ROBERT W BAILEY

TECH DIR DR E V BALDES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.790	0.910
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.020	0.007
TOTAL OTHER	0.406	0.350
TOTAL ANNUAL LAB	1.216	1.267
TOTAL IN-HOUSE	1.216	1.267
TOTAL IN-HOUSE RDT+E	0.790	0.910
ANNUAL OPERATING COST	0.100	0.129

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	36	16	31	5
CIVILIAN	19	1	2	17
TOTAL	55	17	33	22

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	21.495	5.940	7.470	34.905	0.191	0.930

...MISSION

MISSION IS TO CONDUCT TIMELY STUDIES ON CURRENT AND ANTICIPATED RESEARCH PROBLEMS OF A FUNDAMENTAL OR IMMEDIATE NATURE RELEVANT TO ARMY AVIATION AND AIRBORNE PHYSICAL PERFORMANCE STANDARDS AND THE MEDICAL ASPECTS OF RETENTION AND SELECTION OF AVIATORS AND PARACHUTISTS.

...CURRENT IMPORTANT PROGRAMS

RESEARCH PSYCHOLOGY APPLIED TO MEDICALLY SIGNIFICANT PROBLEMS IN ARMY AVIATION. MEDICAL RESEARCH APPLIED TO THE PROBLEMS OF ARMY AVIATION. RESEARCH OF VISUAL PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AVIATION. RESEARCH OF PSYCHOACOUSTICAL PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AV. RESEARCH OF BIOENGINEERING PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AV.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FUNCTIONS, TO STUDY THE PHYSIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF AVIATION AND AIRBORNE PERSONNEL IN THE TRAINING AND OPERATIONAL ENVIRONMENT.

MAJOR EQUIPMENT, INCLUDES A SOUNDPROOF HEARING ROOM, ANECHOIC CHAMBER, COLORIMETER, ECG AND EEG MACHINES, A BIOCHEMISTRY LAB AND AN ELECTRONICS AND ENGINEERING FABRICATION SHOP.

INSTALLATION INSTITUTE OF DENTAL RESEARCH, WALTER REED AMC, WASHINGTON, D. C.

CO COL SURINDAR N BHASKAR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.495	0.495
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.067	0.070
TOTAL OTHER	0.512	0.673
TOTAL ANNUAL LAB	1.074	1.238
TOTAL IN-HOUSE	1.074	1.238
TOTAL IN-HOUSE RDT+E	0.495	0.495
ANNUAL OPERATING COST	0.200	0.234

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	63	2	32	31
CIVILIAN	25	1	8	17
TOTAL	88	3	40	48

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	5.640	5.520	1.570	12.730	0.000	0.535

...MISSION

MAJOR FUNCTIONS ARE TO DEVELOP SIMPLIFIED TECHNIQUES OF DENTAL TREATMENT, CONDUCT INVESTIGATIONS ON PROPERTIES OF DENTAL MATERIALS, AND CONDUCT EDUCATION AND TRAINING PROGRAMS IN DENTISTRY.

...CURRENT IMPORTANT PROGRAMS

WATER LAVAGE
COMBAT RESTORATIVE MATERIALS
CYANOACRYLATES
BIODEGRADABLE MATERIALS
ACCELERATION OF WOUND HEALING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESENT MAJOR EQUIPMENT (ATOMIC ABSORPTION SPECTROPHOTOMETER, INSTRON STRESS/STRAIN TESTING MACHINE, AND HITACHI ELECTRON MICROSCOPE) IS RECEIVING FULL UTILIZATION UNDER EXISTING FACILITY CAPABILITIES. EXPANDED UTILIZATION CAPABILITIES FOR EITHER ARE NONEXISTENT FOR OTHER THAN MISSION RELATED IN-HOUSE ACTIVITIES. ANY EXPANDED CAPABILITIES WOULD HAVE TO BE PROVIDED BY OUT-OF-HOUSE MANPOWER RESOURCES.

INSTALLATION MEDICAL BIOMECHANICAL RESEARCH LABORATORY, WALTER REED AMC,
WASHINGTON, D. C.
CO LTC ORLYN C DESTEREICH TECH DIR DR FRED LEONARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.616	0.615
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.115	0.128
TOTAL ANNUAL LAB	0.731	0.743
TOTAL IN-HOUSE	0.731	0.743
TOTAL IN-HOUSE RDT+E	0.616	0.615
ANNUAL OPERATING COST	0.065	0.065

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	17	0	9	8
CIVILIAN	32	4	21	11
TOTAL	49	4	30	19

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	11.463	1.222	0.000	12.485	0.000	0.360

...MISSION
TO CONDUCT FUNDAMENTAL AND APPLIED RESEARCH TO DEVELOP MATERIALS AND DEVICES FOR INTERNAL AND EXTERNAL BIOMECHANICAL APPLICATION AND THE FABRICATION OF PROTOTYPE DEVICES OF SPECIALIZED MILITARY NATURE OF MEDICAL INTEREST.

...CURRENT IMPORTANT PROGRAMS
IN-HOUSE LABORATORY INDEPENDENT RESEARCH
BASIC RESEARCH SUPPORT OF MILITARY MED-PATHOLOGY.
RESEARCH BIO-MEDICAL SCIENCES SURGERY
COMBAT SURGERY

...FUNCTIONS/EQUIPMENT/CAPABILITIES
USAMBRL HAS EQUIPMENT AND FACILITIES TO CARRY OUT ITS RESEARCH TO DEVELOP SURGICAL REPAIR MATERIALS TO EFFECT HEMOSTASIS AND REPAIR OF TISSUE OR ORGANS, PROSTHETIC AND ORTHOTIC SYSTEMS, BIOMEDICAL DEVICES AND MAXILLOFACIAL PROSTHESES. THIS INCLUDES INSTRUMENTATION FOR LIGHT SCATTERING, CHROMATOGRAPHY, ULTRACENTRIFUGATION RADIOASSAYS, OPTICAL METHODS, DATA, SYNTHESIS, STEAM STERILIZATION, CUVES, BATHS, HISTOLOGY AND ELECTRON MICROSCOPY CELL AND TISSUE CULTURE STUDIES, EXPERIMENTAL SURGERY ROOM ISOTOPE, METABOLIC, AUTORADIOGRAPHY, CELL ORGANELLE, RADIOLOGY, X-RAY STUDIES, MACHINE SHOP EQUIPPED WITH WELDING AND METAL WORKING MACHINES.

INSTALLATION: MEDICAL RESEARCH AND NUTRITION LABORATORY, FITZSIMONS GENERAL
HOSPITAL, DENVER, COLO.

CO COL JOHN E CANHAM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.244	2.066
TOTAL PROCUREMENT	0.000	0.200
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.036	1.045
TOTAL ANNUAL LAB	3.280	3.111
TOTAL IN-HOUSE	3.280	3.111
TOTAL IN-HOUSE RDT+E	2.244	2.066
ANNUAL OPERATING COST	0.535	0.585

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	117	28	57	60
CIVILIAN	98	13	45	53
TOTAL	215	41	102	113

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	80.283	5.138	16.622	102.041	3.391	4.416

...MISSION

DETERMINE ADEQUACY OF TROOPS' DIET IN ALL ENVIRONMENTS AND RECOMMEND NUTRITIONAL MEASURES FOR OPTIMUM PERFORMANCE. CONDUCT BASIC/APPLIED RESEARCH ON 1. MEDICAL, SURGICAL AND NUTRITION PROBLEMS, 2. COMPUTER TECHNIQUES IN BIO-MED AREAS, 3. FOOD HYGIENE, PHYSIOLOGY OF EXERCISE AND FAT.

...CURRENT IMPORTANT PROGRAMS

HUMAN MICRONUTRIENT RQR UNDER VARIOUS COND OF STRESS AND CLIMATES.
NIGHT VISION-VITAMIN A-PCOL SIZE AND BLOOD PLASMA.
MULTIPLE PHYS, BIOCHEM AND PATH ENVIRONMENTAL STUDIES ON EFFECTS OF HIGH TERRESTRIAL ALT. IDENTIFY CAUSE GI MALABSORPTION SYNDROMES.
FACTORS INFLUENCING WORK PERF, FATIGUE AND MUSCLE PHYS-BIOCHEM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INCLUDED ARE HUMAN METABOLIC WARD, GERM-FREE ANIMALS, ACOUSTIC PHYS PERFORMANCE, ELECTRON MICROSCOPY, HIGH ALT LAB.(PIKES PEAK), ENVIRONMENTAL TEST CHAMBER, RCA 301-355 ACPS, AUTO ANALYZERS AND RECORDERS INCLUDING AUTO BETA AND GAMMA COUNTERS, AND SHADOW SHIELD WHOLE BODY COUNTER. RSCH CPBL INCLUDES: NUTRITION SURVEYS AND RATION TESTING, RSCH ON MICROBIOL AGENTS CAUSING RESP DISEASE BIOMED CMPT RSCH INFLUENCE OF HIGH TERRESTRIAL ALT ON PHYS-PSYCH PERFORMANCE, BODY COMPOSITION, METABOLISM AND MODIFYING FACTORS BASIC AND APPLIED STUDIES OF TRACE MINERAL METABOLISM NUTRIENT RQR + INTERRELATIONSHIPS, METABOLIC RESPONSE OF MAN TO NUTRITION AND DISEASE X SURGERY COMPARATIVE PATHOL OF STRESS OF ENVIRONMENT AND NUTRITION AND PHYS AND BIOCHEM STUDIES OF MUSCLE METABOLISM, EXER, AND FATIGUE.

INSTALLATION MEDICAL EQUIPMENT R&D LABORATORY, FT. TOTTEN, FLUSHING, N. Y.

CO COL ROBERT J ROGERS

TECH DIR BENJAMIN D PILE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.727	0.740
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.150	0.136
TOTAL ANNUAL LAB	0.877	0.876
TOTAL IN-HOUSE	0.877	0.876
TOTAL IN-HOUSE RDT+E	0.727	0.740
ANNUAL OPERATING COST	0.331	0.370

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	15	0	2	13
CIVILIAN	39	0	0	31
TOTAL	54	0	10	44

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	7.864	3.577	31.709	43.150	0.545	0.466

...MISSION

CONDUCTS ENGINEERING RESEARCH AND DEVELOPMENT LEADING TO PRODUCTION OF FIELD MILITARY MEDICAL EQUIPMENT FOR THE ARMY AND ON A REQUIRED BASIS FOR THE OTHER SERVICES.

...CURRENT IMPORTANT PROGRAMS

SPRAYER, INSECTICIDE, AERIAL, ULTRA LOW VOLUME
MEDICAL LABORATORY, FIELD
DENTAL FIELD TREATMENT SYSTEM
JET INJECTOR, VETERINARY MEDICINE
FIELD MEDICAL IMAGE AMPLIFIER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE LABORATORY OCCUPIES THREE BUILDINGS UTILIZING A TOTAL OF 11,200 SQUARE FEET FOR ADMINISTRATION, 5000 SQUARE FEET FOR T+E, 13,127 FOR SHOP SPACE AND 14,151 FOR STORAGE. DATA DO NOT INCLUDE SUCH AREAS AS LABORATORIES, CORRIDORS, ETC. EQUIPMENT AND FACILITIES INCLUDE AN ELECTRICAL-ELECTRONICS BRANCH EQUIPPED WITH HAND METERS, OSCILLOSCOPES, GENERATORS, REGULATED POWER SOURCES AND RECORDERS. A PHYSICAL TESTING BRANCH EQUIPPED WITH AN INSTRON TESTING MACHINE, AND ENVIRONMENTAL CHAMBERS. A PROTOTYPE FABRICATION FACILITY EQUIPPED WITH LATHES, MILLING MACHINES, SURFACE GRINDERS, SHEARS, POWER BRAKE, POWER ROLLER, SPOT WELDERS, FOUNDRY, HELIARC AND GAS WELDING EQUIPMENT, HEATING, TREATING OVEN, PAINT OVEN, FABRIC SEWING MACHINES, PLASTIC FORMING EQUIPMENT, CARPENTRY AND PATTERN AND MODEL MAKING TOOLS.

INSTALLATION MEDICAL RESEARCH LABORATORY, FT. KNOX, KY.

CD COL NICHOLAS F CONTE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.803	1.689
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.472	0.491
TOTAL OTHER	0.772	0.779
TOTAL ANNUAL LAB	3.047	2.959
TOTAL IN-HOUSE	3.047	2.959
TOTAL IN-HOUSE RDT+E	1.803	1.689
ANNUAL OPERATING COST	0.405	0.430

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	125	9	53	72
CIVILIAN	133	14	31	102
TOTAL	258	23	84	174

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
10	86.542	5.368	26.702	118.610	0.938	3.033

...MISSION

RESEARCH + SENSORY PHYSIOLOGY, BIOLOGICAL EFFECT OF COHERENT LIGHT, PHYSIOLOGICAL EFFECTS OF WEAPONS, MECHANICAL, + PHYSICAL SYSTEMS- RESEARCH + TRAINING IN BLOOD COLLECTIONS, PROCESSING, PRESERVATION AND TRANSFUSION- OPERATION OF BLOOD DONOR AND BLOOD BANK FELLOWSHIP.

...CURRENT IMPORTANT PROGRAMS

SENSORY PSYCHOPHYSIOLOGY

BIOLOGICAL EFFECTS OF LASER RADIATION.

METHODOLOGY RELATED TO COLLECTION, PROCESSING, PRESERVATION, SHIPMENT, AND TRANSFUSION OF HUMAN BLOOD.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE EQUIPMENT CAPABILITIES OF THE MEDICAL RESEARCH LAB INCLUDE THE FOLLOWING, RUBY AND CO2 LASERS AND AN ELECTRONIC MICROSCOPE. FACILITIES & CAPABILITIES INCLUDE AN ANECHOIC CHAMBER FOR STUDIES INVOLVING SOUND. ADDITIONALLY, THIS UNIT HAS FUNCTIONAL CAPABILITIES IN THE AREAS OF BIO-PHYSICS, HEMATOLOGY, ERGONOMICS, BLOOD COLLECTION AND PROCESSING, PSYCHO-PHYSIOLOGY AND BIOCHEMISTRY.

INSTALLATION RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE, NATICK, MASS.

CO COL JAMES E HANSEN

TECH DIR DR DAVID BASS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.630	2.523
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.006	0.005
TOTAL OTHER	0.674	0.728
TOTAL ANNUAL LAB	3.310	3.256
TOTAL IN-HOUSE	3.310	3.256
TOTAL IN-HOUSE RDT+E	2.630	2.523
ANNUAL OPERATING COST	0.979	1.096

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	86	22	86		0
CIVILIAN	116	25	57		59
TOTAL	202	47	143		59

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	70.157	12.356	30.617	113.130	6.902	2.616

...MISSION

TO CONDUCT BASIC AND APPLIED RESEARCH TO DETERMINE HOW HEAT, COLD, HIGH TERRESTRIAL ELEVATION AND WORK AFFECT THE SOLDIER'S LIFE PROCESSES, PERFORMANCE AND HEALTH AND REPORT AND ADVISE THE ARMY AND THE SCIENTIFIC COMMUNITY.

...CURRENT IMPORTANT PROGRAMS

PREVENTION AND TREATMENT OF DISABILITIES ASSOCIATED WITH MILITARY OPERATIONS IN THE HEAT, COLD AND AT HIGH TERRESTRIAL ELEVATIONS. PREDICTION OF THE BIOLOGICAL LIMITS OF MILITARY PERFORMANCE AS A FUNCTION OF ENVIRONMENT, CLOTHING AND EQUIPMENT. MEDICAL PROBLEMS IN MILITARY ARCTIC OPERATIONS. BIOLOGICAL PROCESSES THAT LIMIT HEAVY PHYSICAL WORK.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT RESEARCH AND PROVIDE GUIDANCE TO DESIGNERS, ENGINEERS, TACTICIANS, PLANNERS AND PHYSICIANS ON MILITARY PERFORMANCE AND CASUALTY PREVENTION AND TREATMENT IN EXTREME CLIMATES AND ENGINEERED ENVIRONMENTS. ADVISE ON HEALTH AND SAFETY IN MANEUVERS DURING HEAT, COLD OR HYPOXIC STRESS. TREAT COLD CASUALTIES AT BASSETT ARMY HOSP., ALASKA. IN HUMAN AND ANIMAL RESEARCH, USE APPROXIMATELY 50 VOLUNTEER TEST SUBJECTS AND EXTENSIVE CLIMATIC CHAMBERS OF NLABS PLUS MANY INTRINSIC SMALLER CHAMBERS, EXTENSIVE ANIMAL CARE FACILITIES, ELECTRON MICROSCOPE, UNDERWATER RESEARCH POOL, COPPER MANIKINS, AND DIVERSE EQUIPMENT FOR BIOCHEMICAL, BIOPHYSICAL, MEDICAL, PHYSIOLOGICAL, PHARMACOLOGICAL, AND PSYCHOLOGICAL MEASUREMENT.

INSTALLATION WALTER REED ARMY INSTITUTE OF RESEARCH, WASHINGTON, D. C.

CO COL W H MERONEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	11.696	11.606
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	1.619	1.615
TOTAL OTHER	4.528	4.878
TOTAL ANNUAL LAB	17.843	18.399
TOTAL IN-HOUSE	17.642	17.874
TOTAL IN-HOUSE RDT+E	11.495	11.381
ANNUAL OPERATING COST	1.525	1.500

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	623	155	214	409
CIVILIAN	586	70	200	386
TOTAL	1209	225	414	795

ACRFS	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1170	353.200	57.500	0.000	410.700	0.000	12.511

...MISSION

PERF MED R+D AND CONDUCTS GRAD EDUC IN FLD OF MED, VET MED + APPLIED MED SCI. SERVES AS CONSULTING AND DIAGNOSTIC REF LAB FOR ARMY. PROV ADVISORY SVC ON PROB OF EPIDEMIOLOGY IN MIL MED + ALLIED FLD. PROV TECH QULT CNTRL OF BIO PROD DEV. PRODC + DISTR BIO PROD NOT AVAIL COM SOURCES,

...CURRENT IMPORTANT PROGRAMS

TO DISCOVER EFFECTIVE CHEMOPROPHYLACTIC AND CHEMOTHERAPEUTIC AGENTS FOR DRUG REFRACTORY MALARIA. TO EVALUATE IMMUNOPROPHYLAXIS OF MENINGOCOCCAL DISEASE. TO CONTROL ACUTE RESPIRATORY DISEASE IN RECRUITS. TO DEVELOP AN IMPROVED BIO-SENSOR MILITARY DOG. TO DEVELOP IMPROVED SURGICAL MANAGEMENT OF SEVERELY INJURED COMBAT CASUALTIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH, TEACHING, AND REFERENCE LABORATORY SERVICES SUMMARIZE MAJOR FUNCTIONS IN THE AREAS OF - PREVENTIVE MEDICINE, INFECTIOUS DISEASES, SURGERY, NEUROPSYCHIATRIC DISEASES, INTERNAL MEDICINE, MEDICAL CHEMISTRY, AND BASIC MEDICAL SCIENCES. HIGHLY SOPHISTICATED MEDICAL EQUIPMENT IN ALL AREAS OF INVESTIGATION- ELECTRON MICROSCOPES, AUTOMATED CHEMICAL ANALYSIS SYSTEMS, CHEMICAL TYPEWRITERS, BEHAVIORAL RESEARCH INSTRUMENTATION. THE WRAIR MAINTAINS LABORATORY AND RESEARCH FACILITIES AT FT. MEADE, MD., EDGEWOOD ARSENAL, MD., 249TH HOSPITAL, JAPAN, SEATO HQ, BANGKOK, THAILAND, AND VIETNAM. THE WRAIR IS CAPABLE OF CONDUCTING RESEARCH IN A VAST NUMBER OF AREAS.

INSTALLATION MEDICAL RESEARCH UNIT, BALBOA HEIGHTS, CANAL ZONE

CD LTC JAMES C BURKE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RET+L	0.163	0.160
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+H	0.000	0.000
TOTAL OTHER	0.089	0.122
TOTAL ANNUAL LAB	0.252	0.282
TOTAL IN-HOUSE	0.252	0.282
TOTAL IN-HOUSE RDT+E	0.163	0.160
ANNUAL OPERATING COST	0.080	0.090

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	9	1	5		4
CIVILIAN	8	0	0		8
TOTAL	17	1	5		12

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	5.000	0.600	0.002	5.602	0.002	0.061

...MISSION

IN CONJUNCTION WITH OTHER U.S. GOVERNMENT AGENCIES, CONDUCTS RESEARCH ON MEDICAL AND ENVIRONMENTAL PROBLEMS OF MILITARY IMPORTANCE IN CENTRAL AND SOUTH AMERICA + PANAMA.

...CURRENT IMPORTANT PROGRAMS

PREVALENCE + DISTRIBUTION OF PARASITIC DISEASE IN LATIN AMERICA.
PATHOGENESIS OF PARASITIC INFECTIONS.
BIOLOGICS OF PHLEBOTOMUS FLIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DIRECT + INDIRECT ISOLATION AND IDENTIFICATION OF PARASITIC ORGANISMS + THEIR VECTORS IN CENTRAL AND SOUTH AMERICA. LABORATORY SPACE ADEQUATE FOR THE SCIENTIFIC DISCIPLINES OF ENTOMOLOGY, PARASITOLOGY AND PATHOLOGY. SPECIAL EQUIPMENT AND FACILITIES TO SUPPORT THESE DISCIPLINES INCLUDE: FLUORESCENT MICROSCOPE, AUTO-TECHNICON, CRYOSTAT, PHOTOMICROGRAPHY, LABORATORY ANIMAL QUARTERS, TISSUE CULTURE LINES, LIQUID NITROGEN PLANT AND ACCESS TO DATA-PROCESSING SERVICE.

INSTALLATION MEDICAL RESEARCH UNIT, KUALA LUMPUR, MALAYSIA

CO LTC FRANCIS C CADIGAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.211	0.180
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.055	0.057
TOTAL ANNUAL LAB	0.266	0.237
TOTAL IN-HOUSE	0.266	0.237
TOTAL IN-HOUSE RDT+E	0.211	0.180
ANNUAL OPERATING COST	0.015	0.015

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	6	4	6		0
CIVILIAN	0	2	0		0
TOTAL	6	4	6		0

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	7.000	0.900	0.000	7.900	0.100	0.200

...MISSION
TO STUDY INFECTIOUS DISEASES OF POTENTIAL MILITARY IMPORTANCE IN
EQUATORIAL ASIA.

...CURRENT IMPORTANT PROGRAMS
STUDY SCRUB TYPHUS TRANSMISSION IN VIRGINS FORESTS.
EVALUATE SUB-HUMAN PRIMATES FOR HUMAN MALARIA HOSTS.
DETERMINE TRANSOVARIAL TRANSMISSION RATE OF RICKETTSIA.
STUDY DIARRHEA IN ABORIGINAL FOREST DWELLERS.
DETERMINE GROWTH REQUIREMENTS FOR PSEUDOMONAS PSEUDOMALLEI.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONTINUED RESEARCH EFFORTS ALONG PRESENT LINES WITHIN THE SCOPE OF
RESEARCH ACTIVITIES, TO PROVIDE DIAGNOSTIC LABORATORY SUPPORT FOR
MALAYSIAN CIVILIAN AND MILITARY MEDICAL SERVICES AND FOR COMMONWEALTH
MILITARY MEDICAL SERVICES.
LABORATORY SPACE AND ANIMAL-REARING FACILITIES ARE PROVIDED BY THE
INSTITUTE FOR MEDICAL RESEARCH, KUALA LUMPUR, MALAYSIA.

INSTALLATION MEDICAL RESEARCH OF INFECTIOUS DISEASES, FT. DETRICK, MD.

CO COL DAN CROZIER

TECH DIR DR WILLIAM R BEISEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	3.780	3.287
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	2.198	2.063
TOTAL ANNUAL LAB	5.978	5.350
TOTAL IN-HOUSE	5.057	4.950
TOTAL IN-HOUSE RDT+E	2.859	2.887
ANNUAL OPERATING COST	0.935	0.915

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	318	45	48		270
CIVILIAN	89	8	19		70
TOTAL	407	53	67		340

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	88.143	17.622	97.731	203.496	8.236	1.930

...MISSION

CONDUCT STUDIES RELATED TO MEDICAL DEFENSIVE ASPECTS OF BW AND DEVELOP APPROPRIATE BIOLOGICAL PROTECTIVE MEASURES, DIAGNOSTIC PROCEDURES AND THERAPEUTIC METHODS.

...CURRENT IMPORTANT PROGRAMS

RAPID DIAGNOSIS OF INFECTIOUS DISEASE. HOST METABOLIC RESPONSE WITH APPLICATION TO EARLY DETECTION OF ILLNESS. DEVELOPMENT OF IMMUNOPROPHYLACTIC PROCEDURES. ACQUISITION OF DATA FOR ASSESSING EFFECT OF INFECTIOUS DISEASE ON A SOLDIER'S PERFORMANCE. THERAPEUTIC METHODS FOR INFECTIOUS DISEASE MANAGEMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES AND EQUIPMENT ARE AVAILABLE TO STUDY THE BIOCHEMICAL, METABOLIC, IMMUNOCHEMICAL, MICROBIOLOGICAL, PATHOLOGICAL, ULTRASTRUCTURAL AND PHYSICAL CHARACTERISTICS OF VARIOUS MICROORGANISMS. NEW LABORATORY FACILITIES PERMIT INVESTIGATIVE WORK WITH HIGHLY INFECTIOUS ORGANISMS AS WELL AS ROUTINE ONES AND PROVIDE CAPABILITY FOR EXPOSURE OF ANIMALS AND HUMANS TO PRECISELY MEASURED DOSES OF MICROORGANISMS. ALSO AVAILABLE IS SPACE FOR SMALL AND LARGE ANIMAL HOLDINGS, A COBALT SOURCE AND SUPERVOLTAGE X-RAY EQUIPMENT FOR STUDIES RELATED TO INFECTION AND RADIATION. VOLUNTEERS ARE USED TO TEST THE EFFICACY OF VACCINES AND OTHER PROPHYLACTIC AND THERAPEUTIC PROCEDURES.

INSTALLATION LETTERMAN ARMY INSTITUTE OF RESEARCH, PRESIDIO OF
 SAN FRANCISCO, CALIF.
 CO COL WILLIAM A AKERS TECH DIR DR MARION B SULZBERGER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.493	0.656
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.466	0.695
TOTAL ANNUAL LAB	0.959	1.351
TOTAL IN-HOUSE	0.959	1.351
TOTAL IN-HOUSE RDT+E	0.493	0.656
ANNUAL OPERATING COST	0.299	0.344

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	84	21	55	29
CIVILIAN	18	3	9	9
TOTAL	102	24	64	38

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	107.000	12.800	1.600	121.400	0.052	2.472

...MISSION

LAIR CONDUCTS RESEARCH IN THE FIELDS OF MEDICINE AND DENTISTRY, GUIDES COORDINATION, SUPPORTS RESEARCH PROJECTS OF STAFF MEMBERS OF LETTERMAN GENERAL HOSPITAL SIMILARLY SUPPORTS RESEARCH IN HOSPITALS AT CLASS I INSTALLATIONS MONITORS OTHER RESEARCH AS DIRECTED BY CG, USAMRDC.

...CURRENT IMPORTANT PROGRAMS

ENVIRONMENTAL ASSAULTS AGAINST THE HUMAN SKIN. TISSUE REACTION TO SUTURES EARLY RESTORATION OF ORAL INTEGRITY BACTEREMIA. BIOCHEMICAL MECHANISMS OF PATHOGENESIS IN FUNGAL SKIN INFECTIONS AND DEVELOPING BETTER METHODS FOR DIAGNOSING AND COMBATING SUSCEPTIBILITY TO FUNGAL INFECTIONS. EFFECTS OF HEMOR SHOCK. TEST COMPOUNDED RADIOPHARMACEUTICALS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A NEWLY RENOVATED EXPERIMENTAL ANIMAL SURGERY HAS AN ANGERR SCINTILLATION CAMERA FOR STATIC AND DYNAMIC RADIOISOTOPIC STUDIES. NEW LABS ARE EQUIPPED TO DO ENZYMOLOGY, CHROMATOGRAPHY, BACTERIOLOGY, IMMUNOLOGY AND MYCOLOGY. EQUIPMENT LIKE THE ULTRACENTRIFUGE AND THE 8-CHANNEL OSCILLOGRAPHIC INK RECORDING SYSTEM FOR RECORDING EKG/EEG S IS INVALUABLE.

INSTALLATION:

AERONAUTICAL RESEARCH LABORATORY, AMES RESEARCH CENTER,
MOFFETT FIELD, CALIF.

DIR F YAGGY

DEP DIR MAJ LOUIE G BERRY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	2.530	3.154
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.039	0.042
TOTAL ANNUAL LAB	2.569	3.196
TOTAL IN-HOUSE	2.569	3.196
TOTAL IN-HOUSE RDT+E	2.530	3.154
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	3	2	4	0
CIVILIAN	111	5	33	78
TOTAL	114	7	37	78

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	9.621	2.207	0.096	11.924	0.002	0.000

...MISSION

CONDUCT BASIC AND APPLIED RSCH IN FIELD OF LOW-SPEED AERONAUTICS.

...CURRENT IMPORTANT PROGRAMS

THEO AND EXP STUDIES OF HELICOPTER ROTOR AERODYNAMIC NOISE
THEO AND EXP STUDIES OF HELICOPTER ROTOR BOUNDARY LAYER FLOWS
WIND TUN INVEST OF PERF AND STABILITY OF TILT ROTORS AT HIGH REO SPEEDS
THEO AND EXP INVEST OF HINGELESS ROTOR SYSTEMS
THEO AND EXP RSCH TO DEFINE OPTIMUM HELICOPTER ROTOR AIRFOILS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TRANSLATE FUTURE AUS AERO RQR INTO RSCH PLANS. PLAN AND ACCOMP INDEPENDENT IN-HOUSE RSCH PROJ. PLAN,COORD,PROG,PERF AND/OR MONITOR RSCH PROJ COT JOINTLY WITH NASA AND OTHER AGCYS. KEEP ABREAST OF AERO RSCH STATE-OF-THE ART WORLD-WIDE AND INFO HIGHER AND LATERAL HQ AND OTHER AGCY AND INSTITUTIONS OF PERTINENT DEV. PROV NUCLEUS OF AERO CAPABILITY WITHIN AUS. ACT AS ADVISOR OR CONSULTANT TO AUS OR OTHER AGCY ON MATTERS CONCERNING AERO RSCH. MONITOR,TECHNICALLY,CONTR SPT RSCH PROJECTS. COORD ALL AUS AERO RSCH ACTIVITIES WITH NASA. PART IN PROFESSIONAL AND ACADEMIC CONF, MEETINGS ANDSYMPOSIA. COND SPECIFIC RES FOR OTHER AGCYS ON NON-INTERFERENCE BASIS WITH PROG RSCH.OPERATE AND MAINTAIN NECESSARY EXPERIMENTAL FACILITIES ALLOC BY NASA-AMES RSCH CTR FOR USE OF ASAARL. PERFORM SPECIAL FUNC AS MAY BE DIRECTED BY DEPUTY FOR LABORATORIES,HQ,AMC.

INSTALLATION BALLISTIC RESEARCH LABORATORIES, ABERDEEN PROVING GROUND, MD.

CO COL HOWARD C METZLER

CIV DIR DR ROBERT J EICHELBERGER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	19.394	17.693
TOTAL PROCUREMENT	0.330	0.250
TOTAL D+M	0.016	0.000
TOTAL OTHER	0.037	0.057
TOTAL ANNUAL LAB	19.777	18.000
TOTAL IN-HOUSE	18.271	16.790
TOTAL IN-HOUSE RDT+E	17.888	16.483
ANNUAL OPERATING COST	4.535	4.500

PERSONNEL	PERSONNEL DATA (END CF FY 1970)			NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	
MILITARY	36	4	30	6
CIVILIAN	681	56	344	337
TOTAL	717	60	374	343

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3360	198.717	41.580	24.030	264.327	11.065	16.653

...MISSION

CONDUCT RSCH AND EXPLORATORY DEVELOPMENT IN THE SCIENCES/TECHNOLOGIES WHICH ARE NECESSARY FOR CONCEIVING DESIGNING DEVELOPING AND EVALUATING WPNS SYSTEMS. PURSUE ORIENTED FUNDAMENTAL RSCH IN PHYSICS CHEM MATH ENGR AND BIOPHYSICS. INVEST PERT BRANCH MILITARY SCI TECH.

...CURRENT IMPORTANT PROGRAMS

STUDIES OF UNUSUAL MATERIAL FOR FRAGMENTATION
MATERIEL GEOMETRY FOR LIGHTWEIGHT ARMOR
COMBUSTIBLE MAT PHENOMENOLOGY-MILITARY FUEL FIRE PROGRAM
RESEARCH IN IGNITION PHENOMENA
VULNERABILITY OF GROUND AND AIRBORNE TARGETS/OFFENSIVE/DEFENSE MEASURES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WIND TUNNELS-SUPERSONIC/HYPERSONIC/TRANSONIC RANGE
EXPLOSIVE BLAST CHAMBERS AND HIGH ALTITUDE BLAST SPHERE
SHOCK TUBES-SIMULATION OF NUCL BLAST/CHEMICAL REACTION RATE
EXPLOSIVE PLAT SLAP AND EXPLODING WIRE
EXPLOSIVE FIELD TEST FACILITIES
HIGH SPEED MOTION PHOTOGRAPHY SCHLIEREN INTERFEROMETRY
ELECTRON MICROSCOPE--ELECTRON SPIN RESONANCE-NUCL MAGNETIC RESONANCE.
ELECTROMAGNETIC RADIATION RANGES
ANALOG COMPUTER FOR SIMULATION OF DYNAMICS OF GUN AND RIFLE
PROPULSION AND COMBUSTION CHAMBERS
LASERS FOR PLASMA PROGAGATION AND SIGNATURES
AFTER-GLOW REACTION CHAMBER-UPPER ATMOSPHERE CHEM REACTION RATES

INSTALLATION COATING AND CHEMICAL LABORATORY, ABERDEEN PROVING GROUND, MD.

CO COL HOWARD C METZLER

ACT DIR HARRY L AMMLUNG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.012	1.485
TOTAL PROCUREMENT	0.133	0.124
TOTAL O+M	0.156	0.070
TOTAL OTHER	0.008	0.010
TOTAL ANNUAL LAB	2.309	1.689
TOTAL IN-HOUSE	1.211	0.993
TOTAL IN-HOUSE RDT+E	1.031	0.825
ANNUAL OPERATING COST	0.159	0.141

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	5	2	8		0
CIVILIAN	46	3	20		26
TOTAL	51	5	28		26

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1	16.625	1.868	4.268	22.761	0.202	2.429

...MISSION

MANAGE + DIRECT THE ASSIGNED PORTION OF AMC MAT + FUELS + LUBES PROGRAM. INCLUDES BASIC + APPLIED RESEARCH IN AUTO CHEMICALS.ORGANIC + SEMI-ORGANIC COATINGS PAINT CLEANING FUELS + LUBES.COORDINATE THE RESEARCH PROGRAM OF AMC IN THE FIELD OF FUELS + LUBES + RELATED MATERIALS,

...CURRENT IMPORTANT PROGRAMS

INVESTIGATION OF THE FLAMMABILITY HAZARDS OF THICKENED FUELS
FUNCTIONAL CLEANING COMPCUNDS + PAINT STRIPPERS
COATINGS TO IMPROVE PROTECTION AND OPERATIONAL RELIABILITY OF MATERIAL
DEVELOPMENT OF A BRAKE FLUID WITH LOW WATER SENSITIVITY
REVISION OF VV-G-768 TO INCORPORATE A LOW EMISSIONS GASOLINE GRADE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT BASIC + APPLIED RESEARCH + ENGINEERING INVESTIGATION IN THE FIELDS OF AUTO CHEMICALS ORGANIC SEMI-ORGANIC CONVERSION COATINGS CLEANERS FUELS + LUBRICANTS.
PARTICIPATE IN PROGRESS REVIEWS IN ASSIGNED FIELDS WITH AMC MAJOR SUB-ORDINATE COMMANDS + PROJECT MANAGERS.
PARTICIPATE IN THE STANDARDIZATION + INDUSTRIAL PREPAREDNESS PROGRAMS.
PREPARE + MAINTAIN THE PRODUCT QUALIFICATION RECORDS IN ASSIGNED FIELDS.
SPECTROPHOTOMETERS--ACCELERATED WEATHERING MACHINE--CORROSION TEST CABINETS--GAS CHROMATOGRAPHS--PROGRAMED HUMIDITY CHAMBERS--FUEL COKER SUB-ZERO TEST CABINET--STROKING UNIT BRAKE FLUID--TEMPERATURE FLOW CORROSION UNIT.
TWO GENERAL PURPOSE LABORATORY BUILDINGS AND EXPOSURE FARM.

INSTALLATION COLD REGIONS RESEARCH AND ENGINEERING LABORATORY, HANOVER, N. H.

JOSEPH F CASTRO LIEUTENANT COLONEL CE COMMANDING OFFICER AND DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST.)
TOTAL RDT+E	6.036	6.056
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.274	0.225
TOTAL OTHER	0.421	0.255
TOTAL ANNUAL LAB	6.731	6.536
TOTAL IN-HOUSE	5.840	4.719
TOTAL IN-HOUSE RDT+E	5.145	4.239
ANNUAL OPERATING COST	1.117	1.228

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	47	4	69	0
CIVILIAN	212	19	75	137
TOTAL	259	23	144	137

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
769	19.013	9.848	108.415	137.276	3.896	4.455

2. MISSION

RESEARCH AND SURVEILLANCE OF TECHNOLOGY FOR ARMY NEEDS IN COLD REGIONS INCLUDING MATERIALS TECHNIQUES AND EVENTS UNIQUE TO COLD ENVIRONMENTS AND TO DESIGN OF MATERIAL FOR USE THEREIN AND FURNISHING ADVICE AND ASSISTANCE TO ARMY AND DOD.

3. CURRENT IMPORTANT PROGRAMS

SITE SELECTION FOR MILITARY STRUCTURES IN ARCTIC AND SUBARCTIC
DESIGN CRITERIA FOR ARCTIC AND SUBARCTIC CONSTRUCTION
DEVELOPMENT OF TECHNICAL AND FIELD MANUALS CONCERNING COLD REGIONS
STUDY 7100 FT ICE CORE BYRD STATION ANTARCTICA
DEVELOP COMPUTER MODELS FOR RIVER THERMAL POLLUTION

4. FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC PROPERTIES AND MILITARY USES OF SNOW ICE AND FROZEN GROUND
IMPROVED CAPABILITY FOR MILITARY OPERATIONS IN COLD REGIONS
DEVELOPMENT OF FIELD MANUALS FOR ARMY USE
COLD FOG CONTROL AND IR ATTENUATION IN SUCH FOGS
TECHNICAL ADVICE AND ASSISTANCE TO ARMY AND DOD AGENCIES
CRITERIA FOR DESIGN OF MILITARY MATERIEL FOR USE IN EXTREME ENVIRONMENTS
HEAT SINK CONCEPTS AND APPLICATIONS
RAPID EXCAVATION OF FROZEN GROUND
PROVIDE GUIDANCE AND ASSISTANCE TO ARMY AND DOD FOR EXTREME CLIMATES,
UNIQUE MODERN LABORATORY WITH COLD ROOMS AND SPECIAL
APPARATUS FOR TESTS AND ANALYSIS OF SNOW ICE AND FROZEN GROUND
CONDUCT RESEARCH ON MATERIALS TECHNIQUES AND EVENTS FOR EXTREME CLIMATES.

INSTALLATION HARRY DIAMOND LABORATORIES, WASHINGTON, D. C.

CO COL DAVID W EINSEL JR

TECH DIR BILLY M HORTON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	23.004	19.859
TOTAL PROCUREMENT	47.947	45.162
TOTAL O+M	1.580	0.400
TOTAL OTHER	0.555	0.549
TOTAL ANNUAL LAB	73.086	65.970
TOTAL IN-HOUSE	32.013	29.328
TOTAL IN-HOUSE RDT+E	17.350	16.192
ANNUAL OPERATING COST	8.132	7.800

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	10	5	11	0
CIVILIAN	1318	27	616	702
TOTAL	1328	32	627	702

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET) LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2138	296.807	49.555	288.362	634.722	6.431	10.148

...MISSION

PERFORM RDT+E ON INFLUENCE, TIME+COMMAND FUZING/SIGNATURE ANALYSIS+TARGET INTERCEPT PHASE OF TERMINAL GUIDANCE/WEAPON SYSTEM SYNTHESIS/CCM/NUCLEAR WEAPONS EFFECTS/INSTRUM, MEASMT+SIMULATION ON MATERIALS+COMPONENTS/ADV ENERGY TRANSFORMATION+CONTROL SYSTEMS/+FLUID TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

DEV+ENG OF PERSONNEL DETECTION SIGNAL PROCESSORS+WEAPONRY RADAR
DEV OF FLUIDIC STABILIZATION SYSTEMS FOR SMALL ARMS+LARGE WEAPONS
ANALYSIS, MODELING+EXPLOITATION OF SOVIET BLOC AIR DEFENSE SYSTEMS
RES+DEV OF HARDENED PROXIMITY FUZING FOR MISSILE REENTRY VEHICLES
RDE+PROGN ON PROXIMITY+ELECTRONIC TIME FUZING FOR ARTILLERY, PORTAR+MINES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN, MANAGE+CONDUCT PROGRAMS IN SUPPORT OF ASSIGN MISSIONS+MANAGE FLUID TECHNOLOGY DEVELOPMENT+PROVIDE CONSULTING SERVICES, TECHNICAL GUIDANCE+ ASSISTANCE TO AMC/OTHER ELEMENTS OF DA, COD+OTHER GOVT AGENCIES+MAINTAIN A HIGH DEGREE OF COMPETENCE IN THE APPLICATION OF PHYSICAL SCIENCES TO THE SOLUTION OF MILITARY PROBLEMS+OPERATE+MAINTAIN SEVERAL HIGHLY SPECIALIZED FACILITIES EQUIPPED TO SUPPORT THESE FUNCTIONS, INCLUDING FLASH XRAY+PULSE REACTOR FOR NUCL EFFECTS EVALUATIONS/ANECHOIC CHAMBER+ ANTENNA TEST RANGE FOR RADIO ANTENNAS/HIGH PRESSURE SHOCK TUBES FOR STDY OF HIGH TEMPERATURE GASES/MERCURY ARC PLASMA TUBE, OPTICAL+SPECTROSCOPIC EQUIPMENT/TEST RANGE FOR EXPERIMENTAL EVALUATION OF FUZES, COMPONENTS+ SUBSYSTEMS/LATITUDE MAGNETIC SIMULATOR FOR SIGNATURE ANALYSIS/TELEMETRY EQUIPMENT/+AIR GUN FOR LABORATORY SIMULATION OF WEAPON FIRING FORCES.

INSTALLATION HUMAN ENGINEERING LABORATORIES, ABERDEEN PROVING GROUND, MD.

CO COL HOWARD C METZLER

CIV DIR DR JOHN D WEISZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.760	3.200
TOTAL PROCUREMENT	0.156	0.156
TOTAL O+M	0.000	0.050
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	2.916	.400
TOTAL IN-HOUSE	2.488	2.700
TOTAL IN-HOUSE RDT+E	2.332	2.500
ANNUAL OPERATING COST	0.488	0.500

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	33	3	26		7
CIVILIAN	95	10	53		42
TOTAL	128	13	79		49

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
10	26.500	17.605	24.658	68.763	0.608	2.957

...MISSION

CONDUCT BASIC AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING.
DEVELOP NEW HUMAN FACTORS ENGINEERING METHODOLOGY.
ESTABLISH AND OPERATE A MANPOWER CHARACTERISTICS DATA BANK.
INTEGRATE ALL MPWR CHARACTERISTICS INTO ARMY MATERIEL DEVELOPMENT PROG.

...CURRENT IMPORTANT PROGRAMS

CONDUCT HUMAN ERROR AND ARTILLERY FIRE EXPERIMENTS.
CONDUCT SMALL ARMS EXPERIMENTS.
INVESTIGATE COMPLEX COMMAND CONTROL INFORMATION DISPLAYS.
CONDUCT AIRCREW STATION ENVIRONMENT EXPERIMENTS.
INVESTIGATE DEPTH PERCEPTION - VISION TECHNIQUES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FIXED WING FLIGHT SIMULATORS
HELICOPTER SIMULATORS WHIRLYMITE
COMMAND AND CONTROL INFORMATION HANDLING SIMULATORS
ANECHOIC CHAMBER
PHYSIOLOGY LAB PLUS INSTRUMENTATION
SMALL ARMS TEST FIRING RANGE
ANIMAL SURGICAL FACILITY
NOISE MEASUREMENT AND ANALYSIS INSTRUMENTATION
WOOD WORKING AND METAL WORKING SHOPS
CLOSED CIRCUIT TV INSTRUMENTATION
CENTRAL NERVOUS SYSTEM OUTPUT RECORDING INSTRUMENTATION
HUMAN PERFORMANCE DATA BANK

INSTALLATION MATERIALS AND MECHANICS RESEARCH CENTER, WATERTOWN, MASS.

DIR DR A E GORUM

^ LTC J W GILLESPIE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	11.127	15.460
TOTAL PROCUREMENT	3.648	2.419
TOTAL O+M	1.335	2.239
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	16.110	20.118
TOTAL IN-HOUSE	12.454	13.364
TOTAL IN-HOUSE RDT+E	9.495	10.105
ANNUAL OPERATING COST	3.146	3.245

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	12	6	12	0
CIVILIAN	652	54	211	441
TOTAL	664	60	223	441

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
48	410.100	122.400	129.000	661.500	14.770	11.307

...MISSION

MANAGE AMC R+D STRUCTURAL MATERIALS + MECHANICS PROG.CONDUCT TECHNOLOGICAL PROGRAMS IN MATERIALS + MECHANICS USED IN ARMY MATERIEL.EXECUTE PROG IN OWN FACILITIES + BY ASSIGNMENT + FUND TRANSFER TO OTHER AMC LABS + CONTRACTORS.PROVIDE DIRECTION + TECH ASST ON MATERIALS + MECHANICS.

...CURRENT IMPORTANT PROGRAMS

R+D PROGRAMS FOR IMPROVED MATERIEL - ARMOR
R+D PROGRAMS FOR IMPROVED MATERIEL - ABM HARDENING
R+D PROGRAMS FOR IMPROVED MATERIEL - AIRCRAFT
R+D PROGRAMS FOR IMPROVED MATERIEL - MATERIALS-PROCESSING + EVALUATION
R+D PROGRAMS FOR IMPROVED MATERIEL - AMMUNITION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE AMC R+D PROG IN MATERIALS + MECHANICS + CONDUCT TECH PROGS IN MATERIALS SYSTEMS + MECHANICS DIRECTED TO ARMY MATERIEL.MANAGE DOD PROG AS EXECUTIVE AGENT-ARMOR TECHNOLOGY.MANAGE + CONDUCT INTEGRATED + DIRECTED BASIC + APPLIED RES ON MATERIALS SUCH AS METALS,CERAMICS,ORGANIC + IN-ORGANIC POLYMERS + COMPOSITES.MANAGE + CONDUCT THEORETICAL + APPLIED STUDIES ON MECHANICS OF MATLS + SYSTEMS.IDENTIFY + INVE BASIC FACTORS INVOLVED IN PROCESSING + APPLICATIONS OF NEW + IMPROVED MATERIALS. OPERATE DOD NOT INFO ANALYSIS CTR.ASSIST IN DESIGN + DEVEL OF PROTOTYPES.DEVELOP METHODS FOR TEST + EVALUATION OF MATERIALS + STRUCTURES.MANAGE ARMY PORTION DEFENSE STANDARDIZATION PRCG.CONDUCT ENGINEERING STANDARDIZATION EFFORT.MANAGE AMC MATERIALS TEST PROG.CONDUCT PEMA MANUF METHOD + TECHNOLOGY PROG + ADVISE COMMAND + INDUSTRY ON PROCESSING TECHNIQUES.

INSTALLATION NUCLEAR DEFENSE LABORATORY, EDGEWOOD ARSENAL, MD.

CO COL HOWARD C METZLER

CIV CHIEF DR DONALD E ECCLESHALL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.553	1.934
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.191	0.145
TOTAL OTHER	0.037	0.021
TOTAL ANNUAL LAB	2.781	2.100
TOTAL IN-HOUSE	2.628	1.980
TOTAL IN-HOUSE RDT+E	2.400	1.814
ANNUAL OPERATING COST	0.754	0.725

PERSONNEL	PERSONNEL DATA (END CF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	40	3	42	0
CIVILIAN	75	14	51	24
TOTAL	115	17	93	24

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
109	35.622	32.599	3.795	72.016	1.385	5.592

...MISSION

CONDUCT RESEARCH IN NUCLEAR WPNS EFFECTS INCLUDING INITIAL NUCLEAR RADIATION RESIDUAL RADIATION AND FALLOUT/SHIELDING AND THERMAL RADIATION PHENOMENA PROVIDE TECHNICAL INFORMATION AND ASSISTANCE IN THE FIELDS OF RADIOLOGICAL/NUCLEAR DEFENSE AND HEALTH PHYSICS.

...CURRENT IMPORTANT PROGRAMS

SHIELDING AND RADIATION TRANSPORT/GAMMA NEUTRONS AND X-RAYS
FALLOUT PREDICTION CODES AND SYSTEMS
NEUTRON CROSS SECTIONS NUCLEAR AND RADIATION PHYSICS AND CHEMISTRY
RADIATION MEASUREMENTS/ACCELERATORS REACTORS AND WEAPONS TESTS
ABM NUCLEAR ENVIRONMENT DEFINITION AND ANALYSIS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOPMENT OF RADIATION TRANSPORT AND SHIELDING CODES
MEASUREMENT OF NEUTRON AND GAMMA RADIATION AT UNDERGROUND TESTS
DEVELOPMENT OF FALLOUT PREDICTION MODELS AND TECHNIQUES
RESEARCH IN LOW ENERGY NUCLEAR PHYSICS
RADIATION CHEM/SOLID STATE RADIATION MEASUREMENT TECHNIQUES
RESEARCH ON SIMULATED EMISSION OF NUCLEAR RADIATION
MAJOR EQUIPMENT INCLUDES A 15 MEV TANDEM VAN DE GRAAFF ACCELERATOR
750 KEV COCKCROFT-WALTON POSITIVE ION ACCELERATOR
ELECTRON MICROPROBE ANALYZER/PULSED ELECTRON SOURCE/ESR SPECTROMETER
X-RAY DIFFRACTION EQUIP/RAD SOURCES/RAD TEST FIELDS/NEUTRON SPECTROMETER.

INSTALLATION NATICK LABORATORIES, NATICK, MASS.

CD DEAN VAN LYDEGRAF

SCI DIR DALE H SIELING

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	15.274	14.208
TOTAL PROCUREMENT	0.470	0.381
TOTAL O+M	10.604	8.557
TOTAL OTHER	1.369	1.432
TOTAL ANNUAL LAB	27.717	24.578
TOTAL IN-HOUSE	22.579	20.988
TOTAL IN-HOUSE RDT+E	12.264	11.444
ANNUAL OPERATING COST	5.187	4.661

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	154	10	78	76
CIVILIAN	1305	99	503	802
TOTAL	1459	109	581	878

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB ADMIN	OF SQUARE FEET OTHER	TOTAL	REAL PROP	EQUIP	
3006	525.000 69.320	365.680	960.000	35.154	11.493	

...MISSION

ACCOM ASG R-D IN THE PHYS BIOL AND EARTH SCI AND ENG TO MEET MIL RQR IN THE COMMODITY AREAS OF TEX CLO BODY ARMCR ORG MATLS INSECT AND FUNG SUBS. CNTRS FOOD SVC EQUIP FLD SPT EQUIP TENT AND EQUIP AND AIR DEL EQUIP. IN DESIG CMDTY AREAS PROV TECH AND ENG SPT IN CONNEX W/ACCOM OF AE AND STD.

...CURRENT IMPORTANT PROGRAMS

CNTR MEAS STUDIES AGNST VULNER OF PERS AND MATLS TO TACT LASER IRRAD
FOOD SERVICE SYSTEM FOR THE ARMY IN THE FIELD
LOW ALT AIRDROP SYS FOR PERS SUPPLIES AND EQUIPMENT
JSOR MC-ARMY FOR GROUND COMBAT ARMOR VEST
RELIABILITY OF FLEXIBLE PACKAGING FOR FOOD

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COBALT 50 IRRAD FACILITY DESIGNED FOR MAX FLEXIBILITY IN FOOD PROCESSING.
BACTERIOLOGY LAB EQUIP FOR INVESTIGATIONS OF PATHOGENIC MICROORGANISMS.
FLAME PROTECTION LAB AND FACILITY INCLUDING AN OUTDOOR FLAME PIT.
HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS.
FOOD PROCESSING FAC FOR CONTROLLED PREPROCESSING AND PROC BY SEV TECHNIQUES.
LAB SUBSONIC WIND TUNNEL CAPABLE OF VELOCITIES UP TO 110 FEET PER SEC.
HEAT TRANSFER LAB TO STUDY HEAT AND MASS TRANSPORT CHAR OF FABRICS.
ELECTRON LINEAR ACCELERATOR DESIGNED FOR HIGH POWER OUTPUT IN FOOD PROC,
DROP TEST FAC CONS OF 40 TON CAPACITY TRACKED CRANE AND A 50 FT BOOM.
DYEING AND FINISHING LAB FOR CONDUCTING STUDIES OF TEXTILES.
FEBETRON MACHINE USED AS A RADIA SOURCE FOR PULSE RADIOLYSIS STUDIES.
RAIA ROOM DESIGNED TO DUPLICATE RAINFALL CORRESPONDING TO NATURAL RAIN.

INSTALLATION

AVIATION MATERIEL LABORATORIES, FT. EUSTIS, VA.

CO COL JOHN R ADIE

TECH DIR LARRY M HEWIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	22.904	16.815
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.004	0.003
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	22.908	16.818
TOTAL IN-HOUSE	5.545	6.538
TOTAL IN-HOUSE RDT+E	5.541	6.535
ANNUAL OPERATING COST	2.479	2.978

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF		
MILITARY	50	0	14		36
CIVILIAN	306	0	132		174
TOTAL	356	0	146		210

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
108	75.393	38.890	15.788	130.071	1.469	5.521

...MISSION

CONDUCT EXPLORATORY DEVELOPMENT AND ADVANCED DEVELOPMENT CONNECTED WITH ARMY AIRCRAFT, RELATED COMPONENTS AND EQUIPMENT, AND ASSOCIATED MILITARY SCIENCES.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEV OF 1500-HP ACFT TURBINE ENGINES ROLLER GEAR TRANSMN SYSTEMS. LEAD LAB FOR ADVANCED DEV OF TACTICAL ACFT GUIDANCE SYSTEM. ADVANCE DEV & SUPPORT OF UTTAS, HLH & ADVANCED ACFT SYSTEMS. CONDUCT MAINT & RELIABILITY PROGRAMS IN ACFT SYS, SUBSYS & COMPONENTS. SAFETY & SURVIV PROGRAMS IN ACFT STRUC, CONTROL SYS & FIRE PROTECTION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEV ADV AERL TECHNOLOGY INCL AERODYNAMICS, STRUCTURES, PROPULSION, STABILITY & CONTROL, ECT. DEV NEW FAMILY OF ADV ACFT TURBINE ENGINES. DEV ACFT ADV DSGN ANAL & SYS INTERGRATION METHODS. PROVIDE NEW MEANS/METHODS FOR IMPROVE ACFT MAINT, RELIABILITY, SURVIV & SAFETY. CONDUCT WIND TUNNEL - FLT RSCH ACFT PROG AND ADV DEV OF ACFT SUBSYS - EQUIP- E.G., CARGO HULG & FLG SUPPORT. CONDUCT LONG RANGE R+D PLANNING. LABS, STRUCTURES FAB AND RSCH, ARMOR DYNAMICS, INSTR, DATA REDUC, FUEL OIL ANALYSIS, EXPR FAB SHOPS, AND FLT HANGAR. EQUIP, FILAMENT WINDING, FATIGUE TESTING, VIBRA SYS 5HZ-10KHZ, TENSILE TEST, NON-DESTRUC TEST, 30-CAL TO 20MM BALLISTICS RANGE, FLAME PROPAGATION, A-D CONVERTOR, ELECTRO PLOTTER, IBM 360-44, CALIB, ENVIR TEST CHAMBERS, ATOMIC ABSORP SPECTR, AND TELEMETERING GND STATION.

INSTALLATION

AVIATION TEST ACTIVITY, EDWARDS AIR FORCE BASE, CALIF.

CO LTC EDWARD P PREISENDORFER

TECH DIR CMDR JAMES S HAYDEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	2.490	1.819
TOTAL PROCUREMENT	0.175	0.225
TOTAL O+M	0.210	0.188
TOTAL OTHER	0.430	0.664
TOTAL ANNUAL LAB	3.305	2.896
TOTAL IN-HOUSE	3.215	2.847
TOTAL IN-HOUSE RDT+E	2.400	1.770
ANNUAL OPERATING COST	0.700	0.700

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	77	0	26	51
CIVILIAN	120	1	33	87
TOTAL	197	1	59	138

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
9	4.280	32.830	98.490	135.600	1.140	3.627

...MISSION

CONDUCT ENCE FLT EVAL OF AIR VEHICLES AS INTEGRATED SYS AND VEH PROPOSED OR CONSIDERED FOR ARMY APPLICATION OR INCORP ADV CONCEPTS WITH POTENTIAL MILI APPLI. PRODUCE TEST DATA ON BASIC AIR VEH PERF, HANDLING QUAL, SYS/SUB SYS INTERFACE AND INTEGRATED SYS PERF, MNTNABILITY AND RELIABILITY.

...CURRENT IMPORTANT PROGRAMS

AH1G AIRWTHINESS AND FLT QUAL, HT VELOCITY, WPNS, STAB AND CONTROL TESTS
CH47 AIRWTHINESS AND FLT QUAL, HT VELOCITY, IR TESTS
OH58 AIRWTHINESS AND FLT QUAL, WPNS, HT VELOCITY TESTING
AH56 WITNESS AND MONITOR, PLANNING FOR ARMY PRELIMINARY EVALUATION
OV10 ARMY PRELIMINARY EVALUATIONS I, II, III TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1-T28 1-C47 1-U8D 3-F51D 10-VIC 1-UH1M 1-UH1C 2-UH1H 1-JUH1H 22-H58A
10-H6A 1-AH1G 1-JCH47C
CENTRAL COMPUTER EMR6135 WITH TELEMETRY
1-AIRBORNE DATA ACQUISITION SYSTEM
1-REMOTE GROUND STATION WITH COMPUTER AND TELEMETRY USED AT OFF SITE
TEST LOCATIONS 4-MAGNETIC TAPES ELECTRIC TYPEWRITER FOR TEST REPORT
PREPARATION LIMITED INSTRUMENT CALIBRATION CAPABILITY PRESSURE TEMP
MB ACCEL FORCE RPM

INSTALLATION ELECTRONICS R&D LABORATORY, FT. MONMOUTH, N. J.

CG MG WALTER E LOTZ JR

DEP DR ROBERT S WISEMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	154.025	98.338
TOTAL PROCUREMENT	15.556	15.000
TOTAL O+M	1.190	1.000
TOTAL OTHER	0.005	0.000
TOTAL ANNUAL LAB	170.776	114.338
TOTAL IN-HOUSE	89.608	77.507
TOTAL IN-HOUSE RDT+E	75.570	63.907
ANNUAL OPERATING COST	16.840	16.600

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	935	18	307		628
CIVILIAN	3155	121	1557		1598
TOTAL	4090	139	1864		2226

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
940	850.625	82.803	581.554	1514.982	41.526	160.754

...MISSION

CONDUCT EXP RESEARCH IN PHYSICAL SCIENCES AND APPLIED RESEARCH AND DEVEL IN ELECT MATL, DEVICES, COMPONENTS, ASSEMBLIES, AVIONICS, SYSTEM ENGINEERING, COMMUNICATIONS EQUIP AND SYSTEMS, ADPE, ELECTRONIC WARFARE, NIGHT VISION, SURVEILLANCE, ATMOSPHERICS, AND ELECTROMAGNETIC COMPAT AND INTERFERENCE.

...CURRENT IMPORTANT PROGRAMS

GROUND AND AIRBORNE, NAVIGATION AND AIR TRAFFIC CONTROL
TACTICAL NETWORK COMBAT RADIO SYSTEM
SURVEILLANCE, TARGET ACQUISITION AND NIGHT VISION RESEARCH AND ENGRG
MICROELECTRONIC AND MICROWAVE MATERIALS, TECHNIQUES AND DEVICES
ELECTRONIC COUNTERMEASURES, ELECTRONIC INTELLIGENCE TECH, STUDIES AND DEV

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE LABS RESEARCH AND DEVELOP ELECTRONIC COMPONENTS, EQUIPMENTS, AND SYSTEMS IN THEIR RESPECTIVE MISSION AREAS. ABOUT ONE-HALF OF THE WORK LOAD IS ACCOMPLISHED UNDER CONTRACT BY OUTSIDE SOURCES. IN-PRODUCTION AND IN-SERVICE ITEMS ARE COVERED BY LAB ENGINEERING SUPPORT. PROTOTYPE INSTALLATIONS FOR EXISTING DEVICES IN NEW VEHICLES, ETC. TESTING CHAMBERS FOR ENVIRONMENTAL STRESS, SHOCK, ETC., FROM CABINET-SIZE UP TO DRIVE-IN SIZE ARE AVAILABLE. CRYOGENIC FACILITIES ARE AVAILABLE TO THE LABS. COMPLETE FABRICATION SUPPORT IS AVAILABLE -MACHINING, METAL WORKING, PLASTICS, WOODWORKING, PLATING, AND OTHERS. UPWARDS OF 50 AIRCRAFT ARE AVAILABLE FOR TEST-FLYING DEVELOPMENTAL DEVICES. FACILITIES ARE GEOGRAPHICALLY SCATTERED. REMOTE ACCESS TELETYPEWRITERS PROVIDE ACCESS TO THE ECOM COMPUTER FOR SCIENTIFIC PERSONNEL DEVELOPING THEIR OWN COMPUTER PROGRAMS.

INSTALLATION MISSILE COMMAND R&D LABORATORIES, REDSTONE ARSENAL, ALA.

CG MG EDWIN I DONLEY

DIR JOHN L MCDANIEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	71.877	58.447
TOTAL PROCUREMENT	6.699	3.600
TOTAL O+M	0.096	0.870
TOTAL OTHER	0.591	0.591
TOTAL ANNUAL LAB	79.263	63.508
TOTAL IN-HOUSE	39.294	32.349
TOTAL IN-HOUSE RDT+E	31.908	27.583
ANNUAL OPERATING COST	5.000	6.000

PERSONNEL	PERSONNEL DATA (END CF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	67	6	46		21
CIVILIAN	982	46	702		280
TOTAL	1049	52	748		301

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
11300	695.768	128.907	90.577	915.252	23.652	34.300

...MISSION

PLAN AND DIRECT MATERIEL DEVELOPMENT PROGRAMS AND PROJECTS NOT SELECTED FOR PROJECT OR COMMODITY MANAGEMENT. MANAGE BASIC AND APPLIED RESEARCH PROJECTS. INITIATE AND PERFORM RESEARCH AND COMP DEV TO GENERATE NEW TECH, AND PERFORM FEASIBILITY AND DESIGN STUDIES FOR FUTURE WEAPON SYS.

...CURRENT IMPORTANT PROGRAMS

TERMINAL HOMING SYSTEMS
ADVANCED LAW
PROJECT 8TH CARD
ADVANCED FORWARD AREA AIR DEFENSE SYSTEMS
EQUIPMENT TECHNOLOGY - EQUIPMENT SYSTEMS DEMONSTRATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PERFORM LONG-RANGE TECH PLANNING. DES, DEV + FAB PROTOTYPE MISSILE SYS. TECH EVAL + SUPERVIS OF CONTRACTOR PROPOSALS + EFFORTS. PLAN + CONDUCT ENG DESIGN TESTS. OPERATE AIGHT + ARPT+M CENTERS. PLAN + DIRECT DEVEL OF TEST EQUIP FOR SYS INSTALLATION + TEST REQUIREMENTS. GUIDANCE + CONTROL CLEAR-ROOM COMPLEX, SIMULATION FACILITY, RF SHIELDED ANECHOIC CHAMBER, DUAL-POSITION TEST STAND, 8000-KW JET FACILITY, HIGH-VELOCITY 2-MV VAN DE GRAAFF, 178-FT-LONG LASER, X-RAY DIFFRACTOMETER + SPECTROGRAPH, PROPELLANT EVAL FACILITY, DYNAMIC MODULES TESTERS, 13 ANALOG COMPUTERS, 4 DIGITAL COMPUTERS. MCMORROW LABS CONTAIN AIG+C, ADV SYS, ADV SENSORS, GSE + S+M LABS 286,000 SQ FT OF SPACE WITH EQUIP VALUED AT \$1M. T+RE LAB OCCUPIES 13,000 ACRES WITH FACIL + CAPABIL FOR FLIGHT + TRACK TEST, SYS ENVIRONMENT, COMPONENT TEST EQUIP + ANALYTICAL SERVICES.

INSTALLATION: MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT CENTER, FT. BELVOIR, VA.

CO COL BENNETT L LEWIS

TECH DIR WILLIAM B TAYLOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	35.313	28.300
TOTAL PROCUREMENT	27.129	32.500
TOTAL O+M	8.472	6.700
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	70.914	65.500
TOTAL IN-HOUSE	24.160	22.368
TOTAL IN-HOUSE RDT+E	16.755	15.768
ANNUAL OPERATING COST	4.101	4.645

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	59	2	37	22
CIVILIAN	1425	16	491	934
TOTAL	1484	18	528	956

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1060	246.637	220.492	348.865	795.992	20.525	29.718

...MISSION

BASIC AND APP RES DEV AND ENGR TEST ON ASGND EQ - RAIL MARINE AMPHIB BDG
ASLT STREAM CROSSING ELEC PWR GEN INDUS ENGS CONST FIREFTG PREFABS HTG
AC WASTE DISPOSAL WATER PURIF CAMOU MINE WARFARE BARR-CTRBARR FUELS HOL
MHE DEHLS PHYS SEC NEMP ENGR SPT TO MSC QUAN PROC AND MAINT ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

EARTHMOVING FAMILY OF ENGR CONSTRUCTION EQUIPMENT (FAMECE)
ELEC PWR GEN INCL LIQ FUEL CELLS ENCLD RANKING CYC PLTS-TURBOALTERNATRS
BARRIER-COUNTERBARRIER MINWARFARE BORDER SECURITY INTEGRATION SYSTEMS
NEMP VULNERABILITY FOR STRATEGIC AND TACTICAL ARMY VEHICLES
LIGHTWEIGHT FLOAT BRIDGE RIBBON BRIDGE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OFFICES AND LABORATORIES WITH SUPPORTING DATA PROCESSING ENGINEERING
AND INSTRUMENTATION SVCS SHOPS TEST COURSES AND TEST LANES. EQUIPMENT
AND CAPABILITIES INCLUDE FUEL CELL AND POWER PLANT LABS AC AND HTG LAB
ANECHOIC MICROWAVE SCATTERING FACILITY. ECHO FREE ANECHOIC CHAMBER FOR
ACOUSTIC IMAGING STUDIES. ENERGY CONVERSION RESEARCH FACILITY, HIGH
PRESSURE AIR COMPRESSORS. HYDRAULICALLY ACTUATED TEST FRAME FOR BRIDGES.
SHOCK TEST TUBE SIMULATING HIGH EXPLOSIVE BLAST EFFECTS ELECTROMAGNETIC
EFFECTS SIMULATORS INCLUDING HIGH ALTITUDE BURST EFFECTS, POWER SYSTEMS
SIMULATOR, OUTDOOR RAIN TEST SITE, FULL SCALE RAIL CAR HUMP TEST FACILITY
AND LARGE AND SMALL TROPICAL TEMPERATURE AND HUMIDITY TEST CHAMBERS.

INSTALLATION FRANKFORD ARSENAL LABORATORIES, PHILADELPHIA, PA.

CO COL EUGENE BARBERO

TECH DIR DR SIDNEY ROSS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	26.965	23.859
TOTAL PROCUREMENT	7.193	7.596
TOTAL O+M	0.627	0.711
TOTAL OTHER	0.097	0.099
TOTAL ANNUAL LAB	34.882	32.265
TOTAL IN-HOUSE	23.354	21.963
TOTAL IN-HOUSE RDT+E	15.437	13.557
ANNUAL OPERATING COST	2.732	2.402

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	23	1	23		0
CIVILIAN	1657	29	549		1108
TOTAL	1680	30	572		1108

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22	558.000	134.000	557.000	1249.000	0.972	8.936

...MISSION

COMMODITY CTR FOR SMALL CAL AMMO + PROPELL ACT DEVICES + MULTIPURP TEST EQ RES IN OPTICAL MTLs + NON-FERR METALS +MTL DEGRAD + MYCOLOGY + PWR TRANS FLUIDS + SYNTH LUBS + PROPELL EXPLOS PYROTECH + LASER COUNTERMEAS R+D TRACER AMMO DESIGN + DEVELOP ARTY METAL PARTS + MECH TIME FUZE

...CURRENT IMPORTANT PROGRAMS

AIRCRAFT + ANTIAIRCRAFT + ARTILLERY + COMBAT VEHICLE FIRE CONTROL
AUTOMATIC TEST EQUIPMENT FOR INTERNAL COMBUSTION ENGINE POWERED MATERIEL
SMALL CALIBER AMMUNITION MODERNIZATION PROGRAM
ARMY SMALL CALIBER AMMUNITION RESEARCH AND ENGINEERING PROGRAM
LASER COUNTERMEASURES AND PROTECTION RESEARCH EXPLORATORY DEVELOPMENT

2..FUNCTIONS/EQUIPMENT/CAPABILITIES

LASER LAB MONOCHROMETER SPECTROPHOTOMETER SOLID STATE PHYSICS LAB GEIGER TUBE DIFFRACTOMETER ELECTRON MICROSCOPE XTAL GROWING EQ ELECTRON BEAM VACUUM FILM DEPOSITION EQ DATA ACQUISITION EQ NMR EQ DYNAMIC PHOTOELASTIC STRESS ANALYSIS EQ FLEXITRON FLASH X-RAY EQ HIGH SPEED PHOTOGRAPHIC EQ SPACE + ATMOSPHERIC SIMULATOR UNIVAC SS90 COMPUTER + PERIPHERAL EQ SPECIAL CHEM CODING IO EQ INFO NETWORK EQ HYDRAULIC + MECH POWDER MOLD EQ VAC-ARC MELTING FURNACES MICROSCAN X-RAY ANALYZER RADIOISOTOPE LAB MICROBIOLOGY LAB TROPICAL CLIMATE RM EPR SPECTROMETER DIFF SCAN CALORIMETER PROPELLANT PROCESSING LAB SPECIAL EQ FOR IGNITION + PYROTECH R+D 15 FIRING RANGES HIGH EXPLOSIVES SITE 4 PADS FOR POINT FUZE DETONATION BALLISTIC MEAS EQ DOPPLER RADAR SPECTRA PHOTOMETER K-BA10 MICROWAVE INTERFEROMETER OPTICAL LAB MICROWAVE ANECHOIC CHAMBER AUTO-CHECKOUT EQ+LAB

INSTALLATION PICATINNY ARSENAL LABORATORIES, DOVER, N. J.

CO COL W A WALKER

TECH DIR H W PAINTER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	63.800	53.800
TOTAL PROCUREMENT	19.246	14.833
TOTAL O+M	0.907	0.919
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	83.953	69.552
TOTAL IN-HOUSE	37.351	30.637
TOTAL IN-HOUSE RDT+E	28.114	24.535
ANNUAL OPERATING COST	9.091	8.945

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	76	3	69	7
CIVILIAN	2000	54	1131	869
TOTAL	2076	57	1200	876

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5852	613.522	860.338	2368.504	3842.064	71.747	47.946

...MISSION

GEN FOR LIFE CYCLE FUNC FR BASIC AND APPLIED RSCH THRU DEVMT AND ENGRG OF NUC AND CONVL MUNS SUCH AS MINES, GRENS, RKT AND MSL WHDS, PROJS, FUZES, EXPLOS, PYRO, PROP, MATS, PHYS AND ENGRG SCIENCE, DIGITAL ANALOG CMPTG. PROCS ALL NUC AND ASG CONVL MUNS. OPS ARMY EODC, DOD PLASTEC.

...CURRENT IMPORTANT PROGRAMS

IMPROVED AMMUNITION-ICM AND RAP
FLECHETTE MUNITIONS
SPRINT, SPARTAN AND LANCE WARHEAD SECTIONS
EXPLOSIVES AND PYROTECHNICS RESEARCH
MUNITIONS FOR ARMY AIRCRAFT WEAPONIZATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUC WPNS, PROTOTYPE FAB AND ASSY, AND EXPLOS AND PROP PLT PLANTS PROV COMPL INTRGD FAC FOR ASSY, INSP AND TEST OF AK AND CONVL MUNS AND COMPS AND THE MFG AND PROCG OF X EXPLOS AND PROP COMP. THE EXPLOS, PYRO, PROP, MATS AND QA LABS HAVE UNUSUAL EQUIP FOR RSCH, RELIABILITY AND QA SUCH AS BETATRON, DYNAMITRON, HIGH SPEED PHOTO AND SHOCK LOAD FAC, HIGH ALT TEST CHAMBERS, ELECTROMAGNETIC RADIATION INST ETC. THE DEVMT AND ENVIRONMENTAL TEST AND EVAL FAC HAVE MAJOR CPSLTY AS STATIC AND DYNAMIC TEST RGS, DROP TOWERS, DUD RECOVY AND DISASSEMBLY, RF VULNERABILITY, COMPL ENVIRONMENTAL SIM, TARGET EFFS, ETC. OTHER EQUIP INCL VIBRATORS FOR LOADS TO 2000 LB, STATIC RKT TEST RG, 2540 TON HYDROSTATIC PRESS, CMPT TAPE CON MFG EQUIP, VARIETY OF FUZE EVAL EQUIP, CLOSED CIRCUIT TV, HIGH ACCEL SLED TRACK.

INSTALLATION BIOLOGICAL LABORATORIES, FT. DETRICK, MD.

CG COL F B MITMAN JR

SCI DIR RILEY D HOUSEWRIGHT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	20.411	16.456
TOTAL PROCUREMENT	2.431	0.000
TOTAL O&M	2.571	0.000
TOTAL OTHER	1.934	1.172
TOTAL ANNUAL LAB	25.347	18.511
TOTAL IN-HOUSE	24.226	18.511
TOTAL IN-HOUSE RDT+E	19.999	16.456
ANNUAL OPERATING COST	8.548	5.568

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	209	25	198	131
CIVILIAN	1434	106	388	1046
TOTAL	1643	131	496	1147

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET) LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1225	1046.390	114.255	829.152	1989.595	68.929	19.596

...MISSION

OPERATES A RESEARCH CENTER FOR BIOLOGICAL DEFENSE.
PROVIDES ADMINISTRATIVE AND LOGISTICAL SUPPORT TO TENANT ACTIVITIES ON THE INSTALLATION.

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN MAMMALIAN CELLS AND TISSUES IN IN-VITRO CULTURE SYSTEMS.
ECOLOGY STUDIES ON VECTOR- AND NON-VECTOR-BORNE MICROORGANISMS.
INVESTIGATIONS ON MOLECULAR BIOLOGY OF PATHOGENIC MICROORGANISMS.
R&D ON RAPID WARNING AND DETECTION SYSTEMS FOR DEFENSE AGAINST BIOLOGICAL ATTACK. R&D ON VEGETATION CONTROL AND USE TECHNIQUES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MEDICAL BACTERIOLOGY LAB FOR RESEARCH ON INFECTIOUS BACTERIA AND FUNGI.
MICRO-BIOLOGICAL LAB FOR RESEARCH ON INFECTIOUS VIRUSES AND RICKETTSIAE.
LAB FACILITIES FOR RESEARCH IN AERIO-BIOLOGY AND AEROSOL-PHYSICS.
FACILITIES FOR RESEARCH IN ALL AREAS OF PLANT PATHOLOGY AND PLANT PHYSIOLOGY. ENVIRONMENTALLY CONTROLLED AEROSOL TESTING CHAMBERS FOR INFECTIOUS MICROORGANISMS.
ANIMAL FARM AND EXPERIMENTAL ANIMAL HOLDING FACILITIES.
FACILITY FOR DRYING BIOLOGICAL MATERIALS INCLUDING INFECTIOUS MICRO-ORGANISMS.
FACILITY FOR R&D AND EVALUATION OF DEFENSE ORIENTED MATERIAL IN HEALTH AND SAFETY LAB FOR MICROBIOLOGICAL AND RADIATION SURVEILLANCE.

INSTALLATION EDGEWOOD ARSENAL LABORATORIES, EDGEWOOD ARSENAL, MD.

CO COL GEORGE W CONNELL

TECH DIR B L HARRIS

PROGRAM	PRG RAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	32.516	23.893
TOTAL PROCUREMENT	5.208	3.602
TOTAL O&M	3.404	2.573
TOTAL OTHER	1.903	2.153
TOTAL ANNUAL LAB	43.031	31.419
TOTAL IN-HOUSE	38.768	29.224
TOTAL IN-HOUSE RDT+E	28.253	22.898
ANNUAL OPERATING COST	11.404	12.062

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PROF'S	TOTAL PRGF		
MILITARY	245	66	213		32
CIVILIAN	1232	70	675		557
TOTAL	1477	136	888		589

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4055	513.536	146.425	184.523	844.484	18.591	8.922

...MISSION

A CLASS II ACTIVITY CONDUCTING A RESEARCH AND DEVELOPMENT MISSION FOR ARMY CHEMICAL MUNITIONS AND CHEMICAL/BIOLOGICAL DEFENSIVE ITEMS. INCLUDES BASIC RESEARCH AS WELL AS EXPLORATORY, ADVANCED + ENGINEERING DEVELOPMENT OF MATERIEL.

...CURRENT IMPORTANT PROGRAMS

SEARCH FOR BINARY CHEMICAL AGENTS
PROPHYLAXIS AND THERAPY OF CHEMICAL CASUALTIES
DEVELOPMENT OF BINARY CHEMICAL AGENTS MUNITIONS SYSTEMS
DEVELOPMENT OF TACTICAL RIOT CONTROL AGENT DISSEMINATION TECHNIQUES
DEVELOPMENT OF NEW CHEMICAL AGENT DETECTOR KITS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS DOL RSCH OF ANTIPERS + ANTIMAT CML AGTS/PROPHYLAXIS + TREATMENT OF CML CASUALTIES/BIO EFFECTS OF CML COMPOUNDS ON MAN/CML AGT DISSEM TECHNIQUES/LEV PROTECTIVE EQUIP + WARNING + DETECTION MAT FOR DEFENSE AGAINST CML ATTACK/AERODYNAMIC RSCH/DEV, FILL + TEST EXPERIMENTAL CML MUNITIONS/PRODUCIBILITY + MAINT OF CML DEV MAT/PROCESS + PROD FAC DATA FOR MFG CML FLAME + SMOKE AGENTS.
MAJOR EQUIP IS CONTAINED IN A COMPLEX OF ENGR + LAB AREAS + INCLUDES CML PILOT PLTS, MUN FILLING, ENGR DESIGN + EXP FAB SHOPS AERSOL DISSEM TEST CHAMBERS PYROTECH MIXING, LOADING + HANDLING FAC INDOOR BALLISTIC RANGE SUBSONIC, SUPERSONIC + TRANSONIC WIND TUNNELS A COMPLETE CLINICAL RSCH FACILITY + AN ANIMAL BREEDING + HOLDING FACILITY.

INSTALLATION ROCK ISLAND ARSENAL LABORATORIES, ROCK ISLAND, ILL.

CG MG H A RASMUSSEN

CH SCI DR C M HUDSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	17.638	12.625
TOTAL PROCUREMENT	2.334	2.518
TOTAL O+M	3.457	5.172
TOTAL OTHER	0.165	0.197
TOTAL ANNUAL LAB	23.594	20.512
TOTAL IN-HOUSE	11.341	13.315
TOTAL IN-HOUSE RDT+E	7.734	7.946
ANNUAL OPERATING COST	4.948	5.676

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	18	0	15	3
CIVILIAN	796	26	291	505
TOTAL	814	26	306	508

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
18	352.462	82.525	71.097	506.084	1.463	9.640

...MISSION

ACFT WPN SYS, ARTY + INF WPNS, CREW SERVED WPNS MTD ON ANY TYPE VEH, + INF + CONVL ARTY LANH DVC FOR BOTH CONVL SHL + H CAP BST RKT ARTY SHL, EXCL FREE RKT, GR, BAL MSL, TGT MSL + RELATED LANH + GSE, CLIPS LK + MAG FLR FOR CONVL A/PMD, IK, SP ARTY + ASGD SPV/TRT, CL POLA, RCL + MT, ELEV + TRAV MECH.

...CURRENT IMPORTANT PROGRAMS

1. MATH MODELING OF DYNAMIC SYSTEMS
2. DEVELOP WEAPON CONCEPTS BY SIMULATION
3. COMPUTER AIDED DESIGN
4. HOLOGRAPHIC WEAPON SYSTEM COMPONENT ANALYSIS
5. ENERGY ABSORPTION SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FAC CAPABILITIES/RNG FAC PERMIT FIRING ARTY WPN OF 105MM SIZE OR SMALLER USING 1 RT PJCTL AT 0 DEGREES EL INTO PRF BUTT AT 100 YDS DIST. WPN FIR AT EL USING DISINTEGRATING PJCTL LOADED W/WET SAND. RNG BLDG HSG INDOOR RNG, 2 ARE 12 MTR, 1 CLIMATIC CHMBX RNG 1000 IN W/CONT HMD TEMP OF -90 DEGREE F/ 20 DEGREE F, 1 100 IN WPN MT SIM RNG. ANY SA WPN THRU 40MM CAN BE FIRED. LATTER RNG 25 W 20 H PERMITS FIRING FROM TK CR HLCPR. ACCESS TO IBM 360/65 COMPUTATION CENTER. PROTOTYPE SHGP IN SUPPORT OF RDT. MAJOR EQUIPMENT, WEAPON/MOUNT SIMULATOR WITH ANCILLARY EQUIPMENT, EXPLOSIVE ACTUATED FIRING SIMULATOR HYDRAULIC FLUX SIMULATOR (HYFLOS), SMALL ARMS FIRING FIXTURE ELECTROCHEMICAL MACHINING SYSTEM HOLOGRAPHIC INSPECTION SYSTEM SCANNING INFRARED RADIOMETER IGNITRIDING FURNACE ALPHA LUBRICANT TESTER MODEL LEW3 THIN FILM ELLIPSO METER.

INSTALLATION: WATERVLIET ARSENAL LABORATORIES, WATERVLIET, N. Y.

CO COL WILLIAM MULHERON JR

TECH DIR DR ROBERT E WEIGLE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	4.815	3.926
TOTAL PROCUREMENT	4.239	4.132
TOTAL O+M	0.942	0.751
TOTAL OTHER	0.015	1.373
TOTAL ANNUAL LAB	10.011	10.176
TOTAL IN-HOUSE	9.447	9.817
TOTAL IN-HOUSE R&D	4.355	3.581
ANNUAL OPERATING COST	3.063	3.408

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PROFS	TOTAL PROF	NON- PROF
MILITARY	4		2	2
CIVILIAN	452	42	176	77
TOTAL	456	44	178	278

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	186.260	23.253	0.000	209.510	1.252	3.356

...MISSION

DESIGN + DEV ARTILLERY, TANK, AIR DEFENSE + SECONDARY CANNON ABOVE 20MM + SPARE PARTS SUCH AS BREECH MECHANISMS, MUZZLE DEVICES, BORE EVACUATORS + SCAVENGERS + AUTOLOADERS SYS MGMT, DES + DEV OF MCRTARS + REC RIFLES. CONDUCT BASIC + APP RESEARCH + MFG TECH TO SPT THE DEVELOPMENT MISSION.

...CURRENT IMPORTANT PROGRAMS

DEV OF 152MM XM150 GUN-LAUNCHER, MAIN ARMAMENT FOR XM70 MAIN BATTLE TANK
DEV 175MM M113E1 TO EXTEND TUBE LIFE THRU IMPROVED FATIGUE RESISTANCE
APPLICATION OF FRACTURE MECHANISMS TO FATIGUE LIFE PREDICTIONS FOR CANNON TUBES.
DEV OF CANNON, 155MM HOW XM199 FOR 155MM HOW XM198. DEV OF COMPOSITE SYSTEMS WITH METAL MATRICES + INORGANIC FIBERS FOR HI-TEMP APPLICATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

UNIQUE FACILITIES + CAPABILITIES INCLUDE: HIGH PRESSURE METALLURGY WITH 20-30 K-BAR FLUID EXTRUSION PRESS WHISKER GROWTH + TEST NEUTRON ANALYSIS ISOTOPE COUNTING DYNAMIC TEST OF BREECH COMPONENTS + TUBE SECTIONS FULL SIZE BY PRESSURE-PULSE SIMULATING FIRING LOADS EXP STRESS ANALYSIS THRU 2+3 DIMENSIONAL PHOTOELASTICITY. COMPOSITE MATERIALS ELECTRODEPOSITION, VACUUM COATER + ELECTRON-BEAM VAPOR-DEPOSITION ENCLOSED PROOF RANGE 20MM MAX ELECTRON MICROSCOPY 2.3 ANGSTROMS' RESOLUTION + 250000X MAG. CRYOGENICS HELIUM DEWAR APP TO TEMPS OF 4 (KELVIN). HI-PERFORMANCE SHOCK TEST 1200 LBS TO 1500 G FOR GUN COMPONENTS, HI-TEMP VACUUM FURNACE 3000 C MAX. TIME OF FLIGHT MASS SPECTROMETER, 20000 GAUSS MAGNET FOR TEST OF HIGH + CRYOGENIC TEMP SPECIMENS. ELECTROPLATING, ANODIZING + TITANIUM HARD COAT PROCESSES. ELECTRON MICROPROBE ANALYZER B-UR IN PPV. IBM 360-44 COMPUTER.

INSTALLATION TANK-AUTOMOTIVE COMMAND LABORATORIES, WARREN, MICH.

CG MG S E LOLLIS

CH SCI E PETRICK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	25.945	35.372
TOTAL PROCUREMENT	33.200	47.100
TOTAL O+M	12.718	9.168
TOTAL OTHER	0.183	0.237
TOTAL ANNUAL LAB	72.046	91.877
TOTAL IN-HOUSE	26.194	21.598
TOTAL IN-HOUSE RDT+E	13.438	12.193
ANNUAL OPERATING COST	8.101	7.524

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	19	1	16		3
CIVILIAN	1039	5	432		607
TOTAL	1058	6	448		610

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1125	315.908	0.000	0.000	315.908	13.183	7.330

...MISSION

RESPONSIBLE FOR RESEARCH, CONCEPT, DESIGN, DEVELOPMENT, FABRICATION, ADVANCED PRODUCTION ENGINEERING, SUPPORT TO PRODUCTION, FOR PRESENT AND FUTURE VEHICLES SYSTEMS AND SUB-SYSTEMS OF TANK-AUTOMOTIVE MATERIEL AND ITS RELATED SCIENCES.

...CURRENT IMPORTANT PROGRAMS

AUTOMATIC TEST EQPT FOR INTERNAL COMBUSTION ENGINE POWERED MATERIEL,
MIDRANGE AND LONG-RANGE CONCEPT STUDIES ON FUTURE TRANSPORT VEHICLES.
MIDRANGE AND LONG-RANGE CONCEPT STUDIES ON FUTURE CBT AND SP VEHICLES.
LOW VULNERABILITY COMBAT TIRES.
AUTOMATIC RIDE CONTROL FOR TRACKED VEHICLES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONCEPT FORMULATION
VEHICLE SUBSYSTEM INTEGRATION
ANALYTICAL PREDICTION OF MILITARY VEHICLE PERFORMANCE
VEHICLE MOTION SIMULATOR
RIVER SIMULATOR FACILITY AND LAND LOCOMOTION SOIL BINS
DEVELOPMENT OF NUCLEAR RADIATION PROTECTION
VEHICLE SIGNATURE PROGRAM
VEHICULAR NOISE REDUCTION PROGRAM
PARTICLE DYNAMICS LABORATORY
METAL ANAL WITH MICOPROBE ELECTRON MICROSCOPE ANALYZER AND TECHNIQUES
DEVELOPMENT OF IMPROVED ARMOR WELDING AND FABRICATION
LOW TEMPERATURE, SHOCK AND VIBRATION TEST FACILITIES

INSTALLATION DESERET TEST CENTER (LABORATORIES), DUGWAY, UTAH

CO COL L. ROBINSON

DIR TESTING COL GEORGE CUSTER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	15.927	14.732
TOTAL PROCUREMENT	1.849	2.322
TOTAL O+M	0.320	2.380
TOTAL OTHER	3.864	3.681
TOTAL ANNUAL LAB	21.960	19.093
TOTAL IN-HOUSE	19.640	17.665
TOTAL IN-HOUSE RDT+E	13.607	13.304
ANNUAL OPERATING COST	5.119	6.983

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	460	6	88	372
CIVILIAN	1099	18	201	893
TOTAL	1559	24	289	1270

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
846299	186.483	124.691	1652.334	1963.508	~ 621	35.564

...MISSION

PLAN, CONDUCT TESTS TO ASSESS MIL VALUE OF CHEM WPNS+CHEM, BIO DEFENSE SYS.
PLAN, CONDUCT TESTS TO SUPPORT R+D.
INVESTIGATE CB TECH METEOROLOGY, ECOLOGY AND EPIDEMIOLOGY.
PROVIDE BASIS FOR NEW WPNS+LOG CONCEPTS FOR EMPLOY OF NEW SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

TEST TECH BINARY G AGENT SYSTEMS.
TEST TECH CHEMICAL INCAPACITATING AGENT SYSTEMS.
HIGH ALTITUDE DIFFUSION STUDIES.
BIOLOGICAL PERSISTENCY + SECONDARY AEROSOL SAMPLING METHODOLOGY.
U- AND G-AGENT PERSISTENCY METHODOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST TECH BINARY SYSTEMS CAPACITY. TEST TECH INCAPACITATING AGENTS.
TEST TECH RIOT CONTROL AGENTS.
BIOLOGICAL THREAT EVALUATIONS
DECONTAMINATION PROCEDURES C/B TECHNOLOGY
DETECTION RAPID WARNING SYSTEMS EVALUATION
ENVIRONMENTAL TEST CAPACITY
PHYSICAL TEST CAPABILITY FOR DEVELOPED WEAPONS SYSTEMS
DEFENSIVE EXPOSURE CHAMBER-HUMIDITY TEMPERATURE CONTROLLED
VEHICULAR ACQUISITION TRACKING SYSTEM
GRIDS FOR LARGE SCALE C/B TEST CAPACITY
AUTOMATIC DATA ACQUISITION SYSTEM FOR METEOROLOGICAL PARAMETER MEASUREMENTS

INSTALLATION WHITE SANDS MISSILE RANGE, WHITE SANDS, N.M.

CG MS E H DESAUSSURE

TECH VIR DR R H DUCAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	101.810	89.808
TOTAL PROCUREMENT	4.497	3.918
TOTAL O+M	0.895	3.744
TOTAL OTHER	9.572	9.583
TOTAL ANNUAL LAB	116.774	104.053
TOTAL IN-HOUSE	92.693	82.108
TOTAL IN-HOUSE RDT+E	77.859	68.078
ANNUAL OPERATING COST	23.148	21.729

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	1368	3	576		792
CIVILIAN	3720	7	567		3153
TOTAL	5088	12	1143		3945

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
453540+	1412.978	321.453	2082.217	4643.648	139.714	138.373

...MISSION

OPERATE A NATIONAL MISSILE RANGE FOR SUPPORT OF ALL APPROVED MISSILE AND RELATED TEST PROGRAMS, INDEPENDENTLY TEST AND EVALUATE ARMY MISSILE AND ROCKET SYSTEMS, AND ENGINEER AND DEVELOP RANGE INSTRUMENTATION SYSTEMS FOR GATHERING TEST DATA.

...CURRENT IMPORTANT PROGRAMS

MULTI-TARGET DETECTION AND TRACKING
DISTANT OPTICAL ATTITUDE MEASURING SYSTEM
TRANSPONDER DEVELOPMENT
LASER RANGING AND TRACKING SYSTEM
LABORATORY- AND FIELD-INDUCED FATIGUE DAMAGED CORRELATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

GROUND AND FLIGHT SAFETY, OBTAINING FLIGHT TRAJECTORY AND EVENT DATA, RECOVERING MISSILES OR PORTIONS THEREOF, REDUCING AND PUTTING INTO READABLE FORMS DATA COLLECTED BY RANGE INSTRUMENTS, ENGINEERING AND DEVELOPMENT OF RANGE INSTRUMENTATION, INDEPENDENTLY TEST AND EVALUATE ARMY WEAPONS SYSTEMS.
EVALUATE GUIDANCE AND CONTROL SYSTEMS, STRUCTURAL INTEGRITY, PROPULSION SYSTEMS, ELECTROMAGNETIC RADIATION EFFECTS, ANALYSIS OF CHEMICAL AND METALLOGRAPHIC EFFECTS, MICROBIOLOGICAL EFFECTS, CLIMATIC ENVIRONMENTAL EFFECTS, TEST AND EVALUATE WARHEADS AND SPECIAL WEAPONS, WEAPONS SIMULATION, NUCLEAR EFFECTS TESTING, ELECTRONIC AND OPTICAL TRACKING SENSORS AND DATA TRANSMISSION REQUIRED TO PROVIDE TEST DATA ON MISSILES AND RELATED PROGRAMS.

INSTALLATION ARCTIC TEST CENTER, FT. GREELY, ALASKA

CO COL EDWIN M RHOADS

SCI ADV C W MARKLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.372	2.829
TOTAL PROCUREMENT	3.138	3.247
TOTAL G+M	3.089	2.833
TOTAL OTHER	2.476	2.548
TOTAL ANNUAL LAB	4.987	5.449
TOTAL IN-HOUSE	4.879	5.415
TOTAL IN-HOUSE RDT+E	2.283	2.815
ANNUAL OPERATING COST	1.967	1.967

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	TOTAL PROF	
MILITARY	365	2	38		335
CIVILIAN	21	2	2		19
TOTAL	386	2	32		354

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
726287	11.126	34.584	181.862	227.572	34.962	7.625

...MISSION

PLAN CONDUCT REPT ON ENVIRON PHASE OF ENG SVC CHECK CONFIRMATORY OTHER TESTS.EVAL FOR TECOM PROJ MGRS OTHER COMMODITY COMMANDS.PARTICIPATE IN MONITOR TROOP TESTS.PROVIDE ADVICE TO PROPONENT AGENCY DURING DEVELOPMENT OF MATERIEL.

...CURRENT IMPORTANT PROGRAMS

SVC TEST AH-1 HELICOPTER XM28/XM55 ARMAMENT SUBSYSTEM
 INTEGRATED ENGR SVC TEST TOW MISSILE SYSTEM
 ARCTIC SVC TEST AN-GRC142 RADIO TELETYPEWRITER
 ARCTIC SVC TEST COUPLING AIRDROP EXTRACTION FORCE TRANSFER
 ARCTIC SVC TEST RELEASE CARGO PARACHUTE MEDIUM CAPACITY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES: 3 MULTIPURPOSE TEST SITES, NETWORK OF VEHICLE MAINTENANCE SHOPS, HELICOPTER, FIXED-WING SUPPORT, A SUPPLY COMPLEX, PHOTOGRAPHIC, GRAPHICS ARTS, INSTRUMENTATION SHOPS, CALIBRATION FACILITIES.
 FACILITIES AND CAPABILITIES: SUPPORT TECHNICAL ASSISTANCE FOR TESTING ARMOR, INFANTRY, ARTILLERY, COMMO, AIRCRAFT, GENERAL EQUIPMENT, CBR ITEMS.

INSTALLATION TROPIC TEST CENTER, FT. CLAYTON, CANAL ZONE

CO COL HYRUM DALLINGA

TECH ADV FRANK S MENDEZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.448	2.241
TOTAL PROCUREMENT	0.065	0.043
TOTAL O+M	0.817	0.305
TOTAL OTHER	1.374	1.366
TOTAL ANNUAL LAB	3.896	3.655
TOTAL IN-HOUSE	3.854	3.600
TOTAL IN-HOUSE RDT+E	2.398	2.186
ANNUAL OPERATING COST	2.048	1.990

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	210	0	60	150
CIVILIAN	100	3	27	73
TOTAL	310	3	87	223

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
34127	55.602	125.623	175.194	356.419	6.102	2.118

...MISSION

PLAN AND CONDUCT ENVIRONMENTAL PHASES OF ENGINEERING, SERVICE, INTEGRATED ENGINEERING/SERVICE EVALUATION, CHECK, AND CONFIRMATORY TESTS. SUPPORT TROPICAL ENVIRONMENTAL TESTS CONDUCTED BY OTHER AGENCIES. CONDUCT RESEARCH IN TROPICAL ENVIRONMENTS.

...CURRENT IMPORTANT PROGRAMS

DETERMINATION OF OPTIMUM TROPICAL STORAGE AND EXPOSURE SITES. DETERMINATION OF CANAL ZONE TERRAIN CHARACTERISTICS RELATED TO MOBILITY TESTING. SERVICE TEST OF AN/CVS3 LASER RANGE FINDER. INTEGRATED ENGINEERING/SERVICE TEST OF 152MM AMMO. INTEGRATED ENGINEERING/SERVICE TEST OF XM51 CB PRESSURIZED SYSTEM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EVALUATE AND RECOMMEND AS TO TEST ITEM SUITABILITY FOR PRESCRIBED USE. RECOMMEND TO HQ, USATECOM, RESEARCH PROJECTS IN SUPPORT OF ARMY RDT+E. PLAN AND SUPPORT RDT+E ACTIVITIES FOR DCD OR OTHER GOVERNMENT AGENCIES. NATURAL TROPICAL ENVIRONMENT. FIRING RANGES. NATURAL TERRAIN MOBILITY COURSES. AMMO TEST STORAGE AND FUNCTIONING AREAS. CHEMICAL, BIOLOGICAL, ELECTRONIC, AND CALIBRATION LABORATORIES. JUNGLE GRASS AND COASTAL MATERIAL EXPOSURE SITES. JUNGLE RADIO RANGING SITES. PHOTOGRAPHIC SUPPORT FACILITIES. TECHNICAL OPERATIONS SUPPORT FACILITY, POL TANK FARM.

INSTALLATION: DEVELOPMENT AND PROOF SERVICES, ABERDEEN PROVING GROUND, MD.

CO COL JAMES J JONES

TECH DIR R P WITT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	8.882	9.879
TOTAL PROCUREMENT	16.251	15.867
TOTAL G+M	1.263	1.382
TOTAL OTHER	3.761	8.820
TOTAL ANNUAL LAB	27.157	27.866
TOTAL IN-HOUSE	26.831	27.442
TOTAL IN-HOUSE RDT+E	8.653	9.589
ANNUAL OPERATING COST	6.828	6.665

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRGF	NON- PRGF
MILITARY	142	2	75	67
CIVILIAN	1227	2	192	1835
TOTAL	1369	2	267	1102

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
71225	3.382	5.419	974.695	983.114	248.861	145.767

...MISSION

PLAN COND REC + REPT RESULTS OF ENGR + OTHER TESTS OF WPNS WPNS SYS RKTs + GUIDED MSLS SYS FIRE CON SURV + TGT ACQ EQUIP ITEMS OF AMMO + COMP MUN CRT VEH + OTHER AUTHV MAT. COMPILER REQUIREMENTS FOR DETM USAGE FACTORS. PROG INS + CON ISS OF ARMOR PLATE FOR TESTS BY USAMC INSTLS + ACTVS.

...CURRENT IMPORTANT PROGRAMS

ENGINEERING TESTING OF 152MM XM411ES CARTRIDGE
ENG DESIGN TESTS FUZE ELEC TIME XM432 F 2.75IN FOLDG FIN AIRCFT RKT+FUZE
ED OF FIRST GENERATION MB1-72
ASSESSMENTS OF 105MM GUN PROPELLANT
SEANTEOPS INSURE PROJECTS FOR SEA NIGHT FIGHTING CAPABILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN DIR + CON AN R+D PROG FOR TEST INSTR TEST FAC + TEST METHODOLOGY TO SPT CURR + FUTURE RQTS IN ASSO MSN AREA. DESIGN DEV PROC + ISS BALLISTIC + OTHER TEST INSTR RORD BY TEST PLANS CHANGES IN TEST METHODOLOGY OR IMPROVE OP EFF. TEST AREA 68702 ACRES RANGE TO LAND IMPACT 2600+ M RANGE TO WATER IMPACT 30022 M 41 MI OF AUTHV CRS INCL 27 SP ENGR TEST CRS + OB- STACLES VARIETY OF ENVIRON CR COND EQUIP SP CHAMBERS FOR SUBJ EQUIP TO DUST SALT SPRAY OR SOLAR RADN. ISOLATED VIBRATION TEST FAC WHICH PERMITS SHAKING EXPLD EQUIP SIMULTANEOUSLY WITH TEMP CONDITIONING. FAC FOR CON TESTS OF ELC CON + GUID EQUIP. HIGH FREQUENCY SOURCE WHICH PERMITS TESTING ALL TYPES OF MAT IN PRESENCE OF A HIGH INTENSITY ELEC MAGNETIC RADN IS AVAIL. SP FAC FOR TEST OF ARMOR PLATE. SP VEL + TGT EQUIP IS AVAIL FOR DBSTS DRFTN. RAPID FIRE AS IS A RKT TRACK FOR CON TML BALLISTIC TESTS.

INSTALLATION: INFANTRY BOARD, FT. BENNING, GA.

PR-S COL CHARLES B THOMAS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+E	1.065	2.753
TOTAL PROCUREMENT	2.020	2.202
TOTAL O+M	0.090	2.022
TOTAL OTHER	1.062	1.266
TOTAL ANNUAL LAB	2.127	2.219
TOTAL IN-HOUSE	1.950	1.883
TOTAL IN-HOUSE ROT+E	0.888	2.617
ANNUAL OPERATING COST	0.166	2.166

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	168	2	11		157
CIVILIAN	48	2	3		45
TOTAL	216	2	14		202

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	2.250	54.238	19.281	75.569	2.422	0.360

...MISSION

PLAN CONDUCT + REPORT TESTS RELATED TO SUITABILITY OF EQUIP FOR ARMY USE.
CONDUCT OR PARTICIPATE IN ENGINEERING + RESEARCH STUDIES AS DIRECTED.
PARTICIPATE IN AND MONITOR TROOP TESTS AS DIRECTED.
PROVIDE ADVICE TO DEVELOPERS DURING THEIR DEVELOPMENT OF INFANTRY EQUIP.

...CURRENT IMPORTANT PROGRAMS

STUDY TO IMPROVE TEST METHODOLOGY + DEVELOP INSTRUMENTED TEST RANGES
SERVICE TEST OF ASSAULT FLAME WEAPON 66PM
INITIAL PRODUCTION TEST OF M561 CARGO TRUCK
SERVICE TEST OF ANTITANK ASSAULT WEAPON XM47 DRAGON
SERVICE TESTS OF NIGHT VISION SIGHTS SECOND GENERATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVICE TEST EQUIP + ANCILLARY ITEMS USED BY INF FOR FIRE POWER TARGET
ACQUISITION GROUND SURVEILLANCE FIRE CONTROL + GROUND MOBILITY FIELD
CLOTHING EQUIP + RATIONS AP MINES CB EQUIP FOR INDIVIDUALS + SMALL UNITS.
AIR-UPPER TEST OF EQUIP WORN OR CARRIED BY PARACHUTISTS WHILE JUMPING.
PROVIDE REPRESENTATION FOR IN-PROCESS REVIEWS.
ASSIST IN PREPARATION OF AND REVIEW QUALITATIVE MATERIEL REQUIREMENTS.
PLAN DIRECT AND CONTROL PROGRAM IN TEST METHODOLOGY.
EVALUATE + MAKE RECOMMENDATIONS CONCERNING SUITABILITY AND SAFETY OF
TEST ITEMS FOR OPERATIONAL USE.
KNOWN DISTANCE SMALL ARMS RANGES MORTAR + ANTITANK RANGES DEFENSE RANGE
INSTRUMENTED ATTACK + QUICK FIRE RANGES CLIMATIC CHAMBER.

INSTALLATION AIRBORNE, ELECTRONIC AND SPECIAL WARFARE BOARD, FT. BRAGG, N. C.

PRES COL KARLTON WARMBROD

ENGR ADV EDWIN S SPAINHOUR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.442	1.323
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.654	1.000
TOTAL ANNUAL LAB	3.096	3.123
TOTAL IN-HOUSE	3.096	3.123
TOTAL IN-HOUSE RDT+E	1.442	1.323
ANNUAL OPERATING COST	0.098	0.095

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	216	0	19	197
CIVILIAN	51	0	6	45
TOTAL	267	0	25	242

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	0.000	36.134	78.358	114.492	0.782	2.000

...MISSION
PLAN, CONDUCT, AND REPORT ON SERVICE TESTS AND CHECK TESTS OF AIRBORNE, COMMUNICATIONS, AND ELECTRONICS EQUIPMENT AND SYSTEMS. PARTICIPATE IN ENGINEERING TESTS, INITIAL PRODUCTION TESTS, AND APPROPRIATE PREPRODUCTION TESTS. PROVIDE ADVICE TO OTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS
SERVICE TEST OF C5A AIRPLANE.
MILITARY POTENTIAL TEST OF RANDOM ACCESS DISCRETE ADDRESS SYS (RADA).
SERVICE TEST OF OV-10 SURVEILLANCE SYSTEM.
CHECK TEST OF PARACHUTE, RESERVE, PERS, TROOP CHEST, BALLISTICALLY DEPLOYED.
SERVICE TEST OF STD AD EQUIP PERS CARGO AT HIGH DZ ELEVATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FACILITIES INCLUDE; BOARD HANGAR BUILDING, COMMUNICATIONS-ELECTRONICS TEST FACILITY, CRYPTOGRAPHIC TEST FACILITY, AND WOODWORK SHOP.
MAJOR EQUIPMENT INCLUDES, TWO T-28A AND 2 T-28B AIRCRAFT USEL IN AERIAL PHOTOGRAPHY MOTION PICTURE, BLACK AND WHITE AND COLOR; 40,000-POUND LOADER, 5-TON WRECKER, 20-TON MOBILE CRANE, 3 SEMITRAILERS, SEVERAL STANDARD VEHICLES, ONE U-6 AIRCRAFT, ONE CARIBOU AIRCRAFT, VARIOUS TYPES OF STANDARD PARACHUTES, STANDARD PLATFORMS, ELEVEN GASOLINE DRIVEN GENERATORS, BALLASTABLE AIRDROP VEHICLES WITH REMOVABLE WEIGHT INCREMENTS, THREE ANEMOMETERS, VARIOUS THERMUMETERS, STOPWATCHES, ELEVEN TACTICAL RADIO SETS, TWO RADIO RECEIVERS, SIX TELETYPEWRITER SETS, TWENTY-TWO SIGNAL GENERATORS, TWO SOUND LEVEL METERS AND ONE SOUND AND VIBRATION ANALYZER.

INSTALLATION AIR DEFENSE BOARD, FT. BLISS, TEX.

PRES COL EDWARD J DALEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+E	2.759	3.976
TOTAL PROCUREMENT	0.040	0.062
TOTAL O+M	0.045	2.000
TOTAL OTHER	2.533	2.555
TOTAL ANNUAL LAB	5.377	6.593
TOTAL IN-HOUSE	5.282	6.373
TOTAL IN-HOUSE ROT+E	2.664	3.756
ANNUAL OPERATING COST	0.462	0.496

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHN'S	TOTAL PRGF	PROF	
MILITARY	371	0	61	310	
CIVILIAN	113	0	18	95	
TOTAL	484	0	79	405	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
26	35.718	33.478	77.417	146.613	1.769	11.344

...MISSION

PLAN CONDUCT REPORT ON ST + CHECK TEST OF AIR DEF EQUIP + SYS
 PARTICIPATE IN ENG TEST INIT PROD TEST PRE-PROD TEST + OTHER TESTS.
 PROVIDE ADVICE TO PROPONENT AGENCIES DURING DEVELOPMENT OF EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

FORWARD AREA ACQUISITION RADAR SERVICE TEST (ST)
 CHECK TEST OF IMPROVED HAWK MAINT PACKAGE
 PRODUCT IMPROVEMENT TEST NIKE-HERCULES SAMCAP MODIFICATION
 TAC FIRE
 CHAPARRAL SIMULATOR/EVALUATOR TEMPERATURE TEST PHASE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ASSURE MAX UTILIZATION OF RESOURCES IN ACCOMPLISHMENT OF MISSION.
 PLAN CONDUCT, RECORD + REPORT RESULTS OF TESTS + EVALUATIONS OF WPN SYS,
 FIRE DIST SYS. EVALUATE ITEMS FOR SAFETY SUITABILITY FOR ARMY USE + OR
 SUITABILITY FOR ISSUANCE TO FLD. COMMENT ON QMDQ/QMR/SUR + MAINT PKG.
 ASSIST IN REVISIONS OF MIL SPECS. PROVIDE TEST REQUIREMENTS FOR TEST
 PLAN. CONDUCT PROGRAM IN TEST METHODOLOGY TO ASSURE PROPER TEST REPORTS.
 SUPPORT FLD RSCH STUDIES, TESTS + OPERATIONS. PROVIDE REPRESENTATION FOR
 ARMY BGARDS, COMMITTEES, AND SYMPOSIA. ASSIST IN PREPARATION OF TRAINING
 LITERATURE AND SELECTION OF TRAINING AIDS.
 EQUIPMENT COMPUTER TAC + INSTRUMENTATION RADAR CINETHEODOLITE PHOTO LAB
 + FILM READING EQUIPMENT. MONITOR FOR ELECTRIC TEST OF EQUIP + DONA ANA
 RANGE FOR FIRING FORWARD AREA WPNS TGT DEVICES + TGT DRONES.

NOT REPRODUCIBLE

INSTALLATION: ARMOR AND ENGINEER BOARD, FT. KNOX, KY.

CO COL ALBERT H HISLOP

TECH DIR ARNOLD E ELKINS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.158	1.716
TOTAL PROCUREMENT	0.260	0.147
TOTAL O+M	0.000	2.002
TOTAL OTHER	2.481	2.550
TOTAL ANNUAL LAB	4.899	4.413
TOTAL IN-HOUSE	4.801	4.257
TOTAL IN-HOUSE RDT+E	2.060	1.562
ANNUAL OPERATING COST	0.368	2.372

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	442	0	78		364
CIVILIAN	97	0	5		92
TOTAL	539	0	83		456

ACRFS	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
6570	6.202	68.268	328.093	402.361	8.302	2.271

...MISSION

PLAN, CONDUCT AND REPORT ON SERVICE, CHECK, PROD IMPROVEMENT, MIL POT + ALL OTHER TESTS AS DIRECTED. PARTICIPATE IN ENGR DESIGN TESTS, ENGR TESTS + ENVIRONMENTAL TEST. PROVIDE ADVICE TO OTHER AGENCIES AND DEVELOPERS DURING THEIR DEVELOPMENT OF ARMOR + ENGINEER EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

SERVICE TEST HEAVY EQUIPMENT TRANSPORTER XM746/XM747.
 SERVICE TEST MODIFIED TANK, COMBAT, FT, 150MM GUN, M60A1E2.
 MILITARY POTENTIAL TEST, TWISTER, ARTICULATED VEHICLE.
 SERVICE TEST, MEMBRANE, HVY DUTY, AIRFIELD SURFACING, XW18.
 MATERIAL TEST WRITING PROCEDURES FOR STANDARDIZED TESTING PROCEDURES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAJOR EQUIPMENT CAPABILITIES OF THE USAAEB CONSIST OF ADEQUATE STILL AND MOTION PICTURE PHOTOGRAPHIC EQUIPMENT FOR SUPPORT OF MISSION REQUIREMENTS. A STATIONERY ELEVATED CAMERA PLATFORM FOR VARIOUS HEIGHTS UP TO 42 FT ABOVE ADJACENT GRADE. GENERATOR LOAD BANKS WITH A TOTAL CAPACITY OF 1442 KW. MOBILE DYNAMETER WHICH MEASURES DRAW BAR PULL FROM 500 TO 20,000 LBS. THIS BOARD'S FACILITIES CONSIST OF 6400 ACRES FOR AUTOMOTIVE PERFORMANCE + DURABILITY TESTING. CONTROL OF MCFARLAND-OLIVER RANGE 160 ACRES WITH A FIRING CAPABILITY OF UP TO 2000 METERS. ADDITIONAL RANGE FACILITIES WITH FIRING CAPABILITY FROM 100 TO A MAXIMUM 10,000 METERS, ARE AVAILABLE FROM HOST INSTALLATION ON A SPACE AVAILABLE BASIS. SITES FOR STILL WATER FORDING, VEHICLE SWIMMING, FERRYING AND MARINE EQUIPMENT TESTING.

INSTALLATION: ARTILLERY BOARD, FT. SILL, OKLA.

PRES COL ROBERT T BLAKE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.004	0.916
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	2.409	2.545
TOTAL ANNUAL LAB	3.413	3.461
TOTAL IN-HOUSE	3.301	3.418
TOTAL IN-HOUSE RDT+E	0.892	0.876
ANNUAL OPERATING COST	0.198	0.188

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	397	0	86	311
CIVILIAN	37	0	2	35
TOTAL	434	0	88	346

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
23	4.008	61.245	39.758	105.011	0.202	1.030

...MISSION

PLAN CONDUCT AND REPORT ON ST CK MIL POTENTIAL AND OTHER TESTS OF FA MATERIAL AS ASG. PARTICIPATE IN AND MONITOR TRP EDT ET AND PROVIDE ADVICE TO PROPONENT AGENCIES AND DEVELOPERS. CONDUCT MPT ST IPT PI TESTS OF FA MATERIEL.

...CURRENT IMPORTANT PROGRAMS

ST CTG HEAT XM622
ST MOBILE WEATHER RADAR AMPS-41
PI FOW 155M SP M109 M129E1
PI PERSHING MSL SYS
SPECIAL PURPOSE LANCE GROUND MOBILITY PHASE 2

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FA TEST ITEMS.
MAINTAIN TEST ITEMS DURING TEST PERIOD.
SPECIAL EFFECTS FIELD UTILIZED FOR IMPROVED CONVENTIONAL MUNITIONS.

NOT REPRODUCIBLE

INSTALLATION AVIATION TEST BOARD, FT. RUCKER, ALA.

PRF S COL DANIEL G GUST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	5.671	5.004
TOTAL PROCUREMENT	0.115	0.123
TOTAL O+M	0.725	0.566
TOTAL OTHER	2.023	1.923
TOTAL ANNUAL LAB	8.534	7.616
TOTAL IN-HOUSE	6.154	5.597
TOTAL IN-HOUSE RDT+E	3.291	2.985
ANNUAL OPERATING COST	0.494	0.538

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	253	1	48	205
CIVILIAN	140	0	25	115
TOTAL	393	1	73	320

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2149	3.018	19.190	207.155	229.363	2.655	11.850

...MISSION

PLAN, CONDUCT, AND REPORT ON TESTS AND CHECKS OF ACFTS, ACFT COMPS AND SUBSYS AND ANCILLARY EQUIP. PART IN TESTS, IPTS AND APROP PPTS AS DIRECTED. PROVIDE ADVICE TO PRNT AGENCIES AND MD DURING THE DEV OF ACFTS, ACFT COMPS AND SUBSYS AND ANCILLARY EQUIP.

...CURRENT IMPORTANT PROGRAMS

ST HAC FLIR
INFANT PHASE II MODEL B
COBRA NIGHT SIGHT
OVIP SURVEILLANCE
CH-47C PHASE F TEST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

USAAVNTD HAS THE FACILITIES AND CAPABILITIES TO PLAN, CONDUCT, RECORD, AND REPORT THE RESULTS OF TESTS AND EVALUATIONS. REVIEW AND COMMENT ON QMDCS, QMRS, SDRS, MAINTENANCE PACKAGES AND ASSIST IN THE REVIEW OF MIL SPEC. TO EVALUATE AND RECOMMEND ON THE SAFETY, SUITABILITY FOR ARMY USE AND OR SUITABILITY FOR ISSUANCE TO THE FIELD OF MATERIAL TESTED. SUPPORT FIELD RESEARCH, STUDIES, TEST, AND OPERATIONS OF OTHER USAMC SUBORDINATE ELEMENTS, DA OR DOD AGENCIES. PLAN, DIRECT AND CONTROL PROGRAMS IN METHODOLOGY TO ASSURE PROPER TESTING AND REPORTING IN CURRENT AND FUTURE YEARS. ASSIST IN PREPARATION OF TRAINING LITERATURE AND SELECTION OF TRAINING AIDS. RECOMMEND TO CG, USATECOM, THROUGH ESTABLISHED PROCEDURES RESEARCH AND DEVELOPMENT PROJECTS DESIGNED TO IMPROVE USATECOM TEST AND EVALUATION.

INSTALLATION GENERAL EQUIPMENT TEST ACTIVITY, FT. LEE, VA.

CO COL DAVID J SCHUMACHER

TECH ADV DR HOWARD W HEMBREE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	2.644	2.405
TOTAL PROCUREMENT	0.133	0.105
TOTAL O&M	0.073	0.014
TOTAL OTHER	1.919	1.950
TOTAL ANNUAL LAB	4.769	4.474
TOTAL IN-HOUSE	4.626	4.325
TOTAL IN-HOUSE RDT+E	2.501	2.256
ANNUAL OPERATING COST	1.450	1.533

PERSONNEL	PERSONNEL DATA (END CF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	286	1	55		231
CIVILIAN	95	1	32		63
TOTAL	381	2	87		294

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)		OTHER	TOTAL	REAL PROP	EQUIP
453	68.589	121.625	21.360	211.574	1.500	2.288

...MISSION

PLAN CONDUCT + REPORT ON SERVICE TESTS CHECK MP CF ED PI IP SS RE LOTS + MOVAD + OTHER TESTS. PROVIDE REQUIRED TEC + LOG CONSULTATION SVCS TO AMC OTHER TECOM COMDS DA + DD. PLAN DIRECT + CONTROL R+D PROGRAM FOR TEST INSTR FAC + METHODOLOGY TO SUPPORT CURRENT + FUTURE TEST REQUIREMENTS.

...CURRENT IMPORTANT PROGRAMS

TESTING BOAT 27FOOT DIESEL BRIDGE ERECTION
TESTING MEDICAL UNIT SELF-CONTAINED TRANSPORTABLE FOOD SERVICE
TESTING TRUCK FORKLIFT 6000 POUND PRT
TESTING TIRES BELTED RADIAL
TESTING KETTLE HEATING BITUM TRL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COORDINATE PLAN CONDUCT + REPORT TESTING ACTIVITIES DIRECTED BY USATECOM. IDENTIFY POTENTIAL MAINTENANCE PROBLEMS + DETERMINE COMPATIBILITY OF THE MAN-MACHINE SYSTEM + THE SAFETY OF ITEMS FOR USE BY THE ARMY. RECOMMEND AS APPROPRIATE SUITABILITY OF MATERIEL TESTED FOR TYPE CLASSIFICATION. PROVIDE FOR ATTENDANCE AT IN-PROCESS REVIEW MEETINGS + OTHER CCNF AS REQ. FACILITIES INCLUDE EXPERIMENTAL KITCHEN + FOOD TEST FACILITIES DYNAMIC + STATIC RAIN COURSE SIX ACCELERATED WEAR COURSES MHE TEST TRACK HIGHWAY + RAIL TESTING FACILITIES TRANSPORTABILITY LINE HAUL + CARGO LOADING ADAPTABILITY TEST COURSE COMBAT EFFECTIVENESS TEST FACILITY POL STORAGE TANKS RADIOACTIVE MATERIALS STORAGE FACILITY ROUGH TERRAIN TEST COURSE FABRIC EXPOSURE SITE MECHANICAL ENGINEERING + POL EQUIPMENT TEST AREAS MARINE + PORT FACILITIES AT FT.EUSTIS BEACH + OCEAN FRONT AT FT.STORY.

INSTALLATION ELECTRONICS PROVING GROUND, FT. HUACHUCA, ARIZ.

CO COL WALLACE D ENDERLE

CH SCI DR GEORGE E SHAFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	12.071	9.202
TOTAL PROCUREMENT	2.823	3.245
TOTAL G+M	0.054	2.000
TOTAL OTHER	3.214	3.010
TOTAL ANNUAL LAB	18.162	15.457
TOTAL IN-HOUSE	13.691	11.933
TOTAL IN-HOUSE RDT+E	8.033	6.224
ANNUAL OPERATING COST	2.681	2.778

PERSONNEL DATA (END CF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	465	1	72	393
CIVILIAN	283	1	87	196
TOTAL	748	2	159	589

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
9231	0.000 211.847 0.000 219.847	4.415 33.789

...MISSION

OP USAEPG INCL ELECTROMAGNETIC ENVIRONMENTAL ECM VULNERABILITY + SYS TEST FAC. PLAN CDT EVAL + REPORT ON ET CF COMMEL + AVIONICS EQUIP + SVC TEST ON DIV COMMEL EQUIP. PROV TECH + LCG CONSULTATION SVC TO OTHER DOD AGENCIES ON TEST + EVAL ACTIVITIES, IN-PROCESS REVIEWS, SPEC COORD, MAINT, EVAL.

...CURRENT IMPORTANT PROGRAMS

METHODS OF MEASURING REFRACTIVITY ERROR.
AUTOMATIC TEST EQUIPMENT FOR COMMUNICATIONS ELECTRONICS.
INFRARED SYSTEM SENSITIVITY STUDY FOR 1972-80.
INFRARED OPTICAL EVALUATION DATA CONTROL SYSTEM.
INFRARED OPTICAL PROPAGATION STUDY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAINT + OP A TEST FAC FOR COMMUNICATIONS ELECTRONIC EQUIP + SYS. INCL ELECTROMAGNETIC ENVIRONMENTAL TEST FAC ECM VULNERABILITY + SYS TEST FAC. SPT FLD RSCH STUD + OPNS OF OTHER USAMC DA OR DOD AGCYS. RECM AS APPROP SUITABILITY OF MAT TESTED FOR TYPE CLASSIFICATION. REV + CMT ON QMDO QMR SDR + MAINT PACKAGE + ASSIST IN REV OF MIL SPECS. PLAN DIR + CCN AMR+D PROG FOR TEST INSTR TEST FAC + TEST METHODOLOGY.

INSTALLATION YUMA PROVING GROUND, YUMA, ARIZ.

CO COL NORMAN L ROBINSON

TECH DIR FLOYD E WATTS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	5.885	6.484
TOTAL PROCUREMENT	4.254	5.975
TOTAL O&M	1.085	0.790
TOTAL OTHER	10.811	10.856
TOTAL ANNUAL LAB	22.035	24.105
TOTAL IN-HOUSE	14.985	17.325
TOTAL IN-HOUSE RDT+E	5.885	6.484
ANNUAL OPERATING COST	6.800	6.800

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	426	-0	56	370
CIVILIAN	777	-0	44	733
TOTAL	1203	-0	100	1103

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
943864	2.000	72.280	429.186	501.466	74.724	46.038

...MISSION

PLAN, CONDUCT, RPT ENG TEST AIRDROP MAT AND LONG RANGE TUBE ARTY,
DESERT ENVIRONMENT TEST OF ARMY MATL AS DIRECTED.
PLAN CONDUCT RPT ENG DESIGN PROC AND PCST PRCD TEST AS DIRECTED.
PLAN CONDUCT RPT ENG DESIGN TEST OF AIRCRAFT WEAPONS SYSTEM.

...CURRENT IMPORTANT PROGRAMS

AIRCRAFT RECOVERY KIT
TRUCK, 5-TON, XM809 SERIES
HET 70
HOW, 8 FATIGUE, M110E2
NATO STANDARDS TEST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BALLISTIC MEASUREMENT RANGES
ENGINEERING TEST FACILITIES
VEHICLE FIELD TEST FACILITIES
TEST COURSES
DESERT TERRAIN TEST AREAS
CONTROLLED IMPACT TEST FACILITY
INSTRUMENTED DROP ZONES
RADIO TELEMETRY
DATA PROCESSING CENTER
RANGE TIMING
OPTICAL PHOTO ENG FACILITIES
AVIATION SUPPORT

INSTALLATION

ARMY MATERIALS SYSTEMS AND ANALYSIS AGENCY, ABERDEEN PROVING GROUND, MD.

CO COL HOWARD C METZLER

TECH DIR DR JOSEPH SPERRAZZA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	10.044	10.855
TOTAL PROCUREMENT	0.191	0.110
TOTAL O+M	1.724	1.597
TOTAL OTHER	2.050	0.050
TOTAL ANNUAL LAB	14.009	12.620
TOTAL IN-HOUSE	7.853	8.463
TOTAL IN-HOUSE RDT+E	6.590	7.000
ANNUAL OPERATING COST	1.587	1.786

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	14	0	15	0
CIVILIAN	254	2	187	67
TOTAL	268	2	202	67

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	9.800	19.421	3.685	32.906	0.845	3.331

2. MISSION

PROVIDE CENTRAL TECH CAPABILITY FOR ALL SYSTEMS ANALYSIS, IMPROVEMENT IN CAPABILITY + PERFORMANCE. ANALYZES EFFECTIVENESS OF NEW/EXISTING MILITARY MATERIEL SYSTEMS LOGISTIC + SUPPORT TO DETERMINE EFFECTIVENESS + POTENTIAL INCREASES THRU UTILIZATION OF MATERIEL PLAN + MANAGE JTGG/ME EFFORT.

3. CURRENT IMPORTANT PROGRAMS

ARMY MATERIEL SYSTEMS ANALYSIS AGENCY
ANTI-ARMOR SYSTEMS + ARMOR VULNERABILITY
WEAPONS EFFECTS / TARGET VULNERABILITY
AIRCRAFT WEAPON SYSTEM EFFECTIVENESS
JOINT TECHNICAL COORDINATING GROUP / MUNITIONS EFFECTIVENESS

4. FUNCTIONS/EQUIPMENT/CAPABILITIES

(NO EQUIPMENT.)

INSTALLATION NAVAL UNDERWATER WEAPONS RESEARCH AND ENGINEERING STATION,
NEWPORT, R. I.
CAPTAIN ROBERT T LUNDY USN COMMANDING GERALD G GOULD TECHNICAL DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	9.894	13.662
TOTAL PROCUREMENT	10.066	15.547
TOTAL O+M	11.347	12.249
TOTAL OTHER	2.318	6.515
TOTAL ANNUAL LAB	33.625	47.973
TOTAL IN-HOUSE	21.985	31.167
TOTAL IN-HOUSE RDT+E	6.629	9.154
ANNUAL OPERATING COST	9.459	11.695

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	64	0	13	51
CIVILIAN	1580	20	602	978
TOTAL	1644	20	615	1029

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
202	189.148	133.959	355.278	678.385	13.951	13.262

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION ON UNDERWATER WEAPONS + COMPONENTS. PROVIDE ENGRG ASSISTANCE TO SYSTEMS COMMANDS IN COORDINATION OF PROCUREMENT PROD MAINT + QUALITY ASSURANCE OF ASSIGNED WEAPNS SYSTEMS. PROVIDE SERVICE ENGINEERING FOR ASSIGNED EQUIPMENTS.

...CURRENT IMPORTANT PROGRAMS

TORPEDO MK49/TARGET MK27 CONCURRENT EVALUATION
EXTER/DEXTER DEEP SUBMERGENCE ASW WEAPONS SYSTEMS
ADVANCED FIRE CONTROL SYSTEMS DEVELOPMENT
TECHNICAL COGNIZANCE AND MANAGEMENT SUPPORT FOR SUBROC WEAPON SYSTEM
DES.COG/IN-SERV.ENGRG.FOR FLEET WEAPONS, FIRE CONTROL SYSTEMS+LAUNCHERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT PROGRAMS CONCERNED WITH APPLIED RDT+E OF UNDERSEA WARFARE WEAPON SYSTEMS. EXERCISE DESIGN COG AND IN-SERVICE ENGINEERING FOR DESIGNATED SERVICE WEAPONS FIRE CONTROL SYSTEMS AND LAUNCHERS. PLAN AND CONDUCT EAST COAST WEAPON SYSTEM ACCURACY TRIALS (WSAT) AND OTHER SIMILAR TRIALS FOR DESTROYERS AND SUBMARINES. MAJOR UNIQUE EQUIPMENTS AND FACILITIES INCLUDE- A DEPTH TEST FACILITY FOR TESTING PROPULSION SYSTEMS UNDER SIMULATED DEPTHS OF 5600 FEET. A COMPLETE FIRE CONTROL LAB FOR ADVANCED RES + DEV TASKS. A WEAPON-LAUNCHING PIER AND INSTRUMENTED SHALLOW WATER RANGE WHICH EXTENDS TO 5000 YARDS. A LAUNCHER LABORATORY WHICH CAN TEST FIRE FULL-SIZE TORPEDOES UNDER SIMULATED DEPTH CONDITIONS. SYSTEM ANALYSIS AND COMPUTER LABS TO EVALUATE EXISTING AND PROPOSED WEAPONS SYSTEMS AND TO CONDUCT DATA REDUCTION AND ANALYSIS.

INSTALLATION NAVAL AIR ENGINEERING CENTER, PHILADELPHIA, PA.

CO CAPT C T FROSCHER USN TECH DIRECTOR MR J M DUNFORD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	7.329	7.833
TOTAL PROCUREMENT	41.984	33.558
TOTAL O+M	19.183	15.594
TOTAL OTHER	6.266	6.722
TOTAL ANNUAL LAB	74.762	62.899
TOTAL IN-HOUSE	37.368	38.685
TOTAL IN-HOUSE RDT+E	4.894	6.463
ANNUAL OPERATING COST	6.398	7.521

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRGF	NON- PROF
MILITARY	81	1	28	61
CIVILIAN	2231	2	368	1871
TOTAL	2312	1	388	1932

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
568	1398.866	157.635	727.159	2274.868	33.522	19.898

...MISSION

CONDUCT A PROGRAM OF RESEARCH, DEVELOPMENT, TEST, EVALUATION, SYSTEMS INTEGRATION, LIMITED PRODUCTION, AND FLEET ENGINEERING SUPPORT IN LAUNCHING, RECOVERY AND LANDING AIDS FOR AIRCRAFT AND IN GROUND SUPPORT EQUIPMENT FOR AIRCRAFT AND AIRBORNE WEAPONS SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

CARRIER AIRCRAFT SUPPORT STUDY (CASS)
F-14/CARRIER COMPATIBILITY AND SUPPORT
SHIPBOARD AUTOMATED LIGHTWEIGHT AIRCRAFT RECOVERY SYSTEMS
PROJECT OFFLOAD, REMOVAL OF LOW USAGE GROUND SUPPORT EQUIPMENT FROM CVAS
ADVANCED FIRE FIGHTING SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT RDT+E ON SHIPBOARD AND SHOREBASED A/C LAUNCH, RECOVERY, VISUAL LANDING AIDS, AND SUPPORT EQUIP. AND THEIR RELATED SYSTEMS. DESIGN DEVELOP AND/OR PROCURE EQUIP. AND COMPONENTS TO MAINTAIN AND SUPPORT THESE SYSTEMS. DETERMINE SUPPORT EQUIP. REQUIREMENTS BY PERFORMING ENGR. ANALYSIS OF END ITEMS. MANAGE TEST PROGRAMS FOR EQUIP. TESTED CN VERSATILE AVIONICS SHOP TEST SYSTEM. VERSATILE MACHINE SHOP WITH CONVENTIONAL AND AUTOMATED NUMERICALLY CONTROLLED MACHINE TOOLS, CAPABLE OF PROTOTYPE AND LIMITED PRODUCTION. IBM 360/58 COMPUTER FOR ENGINEERING ANALYSIS. LANDING MAT TEST FACILITY FOR FULL SCALE SIMULATION OF RUNWAY LOADING DURING A/C LANDING. TEST FACILITY FOR COMPLETE EVALUATION OF WIRE ROPE. COMPONENT TEST LAB FOR DEVELOPMENT TESTING OF HYDRAULIC, PNEUMATIC, AND ELEC. EQUIP. UNDER CONDITIONS SIMULATING FLEET USE.

INSTALLATION: NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER, WASHINGTON, D. C.

COMMANDER - CAPTAIN R W KING, USN TECHNICAL DIRECTOR - DR A POWELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	45.933	52.752
TOTAL PROCUREMENT	3.953	2.869
TOTAL O&M	2.929	4.422
TOTAL OTHER	8.720	8.933
TOTAL ANNUAL LAB	51.515	64.995
TOTAL IN-HOUSE	36.454	31.539
TOTAL IN-HOUSE RDT+E	25.990	27.141
ANNUAL OPERATING COST	12.643	13.947

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	25	3	25	2
CIVILIAN	1933	62	748	1165
TOTAL	1958	65	773	1165

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
208	811.955	132.113	524.842	1468.115	52.770	31.757

...MISSION

TO CONDUCT A PROGRAM OF ANALYSIS, RDT&E, SYSTEMS INTEGRATION, FLEET ENGINEERING SUPPORT IN NAVAL SHIP SYSTEMS, AND TO CONDUCT INVESTIGATIONS INTO RELATED FIELDS OF SCIENCE AND TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

SUPPORT ULMS SHIP CONTROL AND HULL DESIGN PROGRAMS. DEVELOP STRESS ANALYSIS AND DESIGN TECHNIQUES FOR CROSS STRUCTURE OF CATAMARAN HULLS. DEVELOPMENT OF COMPUTER-AIDED, INTEGRATED SHIP DESIGN SYSTEM (ISDS) WITH INTERACTIVE GRAPHICS. SIGNIFICANT CONTRIBUTIONS TO SUBMARINE SILENCING. DEVELOP TECHNOLOGY AND FORMULATE DESIGN CRITERIA FOR HYDROFOIL CRAFT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT R D T AND E AND PROVIDE SUPPORT TO THE OPERATING FORCES AND NAVAL AND GOVERNMENT AGENCIES AS ASSIGNED IN THE AREAS OF HYDROMECHANICS, STRUCTURAL MECHANICS, ACOUSTICS AND VIBRATIONS, AERODYNAMICS, APPLIED MATHEMATICS, AND SYSTEMS DEVELOPMENT. NSRDC FACILITIES INCLUDE THE HIGH SPEED, DEEP AND SHALLOW WATER, MANEUVERING-SEAKEEPING, AND ROTATING ARM TOWING BASINS. VARIABLE PRESSURE WATER TUNNELS. DEEP SUBMERGENCE PRESSURE TEST TANKS. SHIP AND PERSONNEL PROTECTION FACILITIES. UNDERWATER EXPLOSIONS TEST POND AND PITS. SHIP SHOCK SIMULATORS. MOBILE NOISE BARGE (MONDB). ACOUSTIC DATA ANALYSIS CENTER. ANECHOIC TEST FACILITY. VIBRATION GENERATORS. AERODYNAMIC TEST FACILITIES - SUBSONIC, TRANSONIC, SUPERSONIC, AND HYPERSONIC WIND TUNNELS. COMPUTER FACILITIES AND HYDROFOIL SPECIAL TRIALS UNIT.

INSTALLATION NAVAL RESEARCH LABORATORY, WASHINGTON, D.C.

DIRECTOR CAPT EARLE W SAPP USN DIRECTOR OF RESEARCH DR ALAN BERMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	89.133	89.996
TOTAL PROCUREMENT	9.633	8.303
TOTAL O+M	1.801	6.532
TOTAL OTHER	1.147	1.697
TOTAL ANNUAL LAB	101.714	100.228
TOTAL IN-HOUSE	94.915	96.120
TOTAL IN-HOUSE RDT+E	82.334	85.888
ANNUAL OPERATING COST	21.714	22.692

PERSONNEL	PERSONNEL DATA (END CF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	90	3	10	30
CIVILIAN	3626	363	1370	2256
TOTAL	3716	366	1380	2336

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2178	2024.770	205.998	694.562	2925.330	68.694	67.167

...MISSION
TO CONDUCT SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE PHYSICAL SCIENCES AND RELATED FIELDS DIRECTED TOWARD NEW AND IMPROVED MATERIALS, EQUIPMENT, TECHNIQUES, AND SYSTEMS FOR THE NAVY.

...CURRENT IMPORTANT PROGRAMS
HIGH ENERGY LASER, GENERATION, PROPAGATION, AND DAMAGE PROGRAM.
ANTI-SURFACE-SHIP MISSILE DEFENSE PROGRAM.
HIGH ALTITUDE EXPLOSION REACTION MODELING AND SIMULATION PROGRAM.
ADVANCED ACOUSTIC ANTI-SUBMARINE WARFARE SURVEILLANCE PROGRAM.
OVER-THE-HORIZON RADAR DETECTION AND CLASSIFICATION PROGRAM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
THIS IS THE NAVY'S PRINCIPAL PHYSICAL SCIENCE RESEARCH LAB. MAJOR AREAS ARE ELECTRONICS, RADAR, COMMUNICATIONS, ELECTRONIC WARFARE, CHEMISTRY, METALLURGY, PHYSICS, GENERAL, OPTICAL, PLASMA, NUCLEAR, MATHEMATICS, ACOUSTICS, OCEANOLOGY. AS THE CORPORATE LABORATORY OF THE NAVY, NRL IS RESPONSIBLE FOR MAINTAINING A PROGRAM WHICH WILL FURNISH THE SCIENTIFIC BASIS FROM WHICH DEVELOPMENT EFFORTS AND OPERATIONAL EQUIPMENTS OR TECHNIQUES WILL EVOLVE. MAJOR FACILITIES AND EQUIPMENT INCLUDE- TWO OCEANOGRAPHIC SHIPS, ONE FOR DEEP OCEAN SEARCH AND RESCUE ONE FOR ACOUSTIC ASW RESEARCH. MAJOR ACOUSTIC STANDARD AND CALIBRATION FACILITIES. HIGH LEVEL RADIATION LABORATORY. THREE NUCLEAR PARTICLE ACCELERATORS. HIGH ENERGY LASER FACILITY. SPACE SIMULATION FACILITY.

INSTALLATION NAVAL WEAPONS LABORATORY, DAHLGREN, VA.

COMMANDER - CAPT STEVEN N. ANSTASION TECHNICAL DIRECTOR - BERNARD SMITH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	20.098	24.785
TOTAL PROCUREMENT	26.690	11.593
TOTAL O+M	10.543	12.401
TOTAL OTHER	6.264	8.419
TOTAL ANNUAL LAB	63.595	57.198
TOTAL IN-HOUSE	48.381	33.163
TOTAL IN-HOUSE RDT+E	16.640	15.094
ANNUAL OPERATING COST	8.503	12.395

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	122	0	30	92
CIVILIAN	2499	54	910	1589
TOTAL	2621	54	940	1681

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
4490	482.647	72.296	832.770	1387.713	32.469	29.994

...MISSION

TO CONDUCT A PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST, EVALUATION, SYSTEM INTEGRATION, AND FLEET ENGINEERING SUPPORT IN NAVAL WEAPON SYSTEMS, PRINCIPALLY FOR SURFACE WARFARE, AND TO CONDUCT SUPPORTIVE PROGRAMS IN OTHER WARFARE AREAS AND FIELDS OF TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

FBM-POLARIS-POSEIDON GUID CONCEPT, DATA, SOFTWARE/BASIC GUID STUDIES ULMS. SURF SYS-ADV NAVAL GUNS/CANNON-LAUNCHED GUIDED WEAP/NEW KILL MECHANISMS. EM SYS-MOBILE LAB FLEET RESEARCH/COMBAT EM VULN/OP INTELLIGENCE COLLECT. WAR ANAL-MARCORPS FIRE SUPP STUDY/MINEFIELD ANAL/ADV ASW SIMUL MODELS. OTHER-SMS SOFTWARE/CLOSE-IN WEAP/ADV 5-INCH SHELL/CB DEFENSE/TGT VULN.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BROAD STUDIES OF RQMTS, CAPABILITIES, THREAT+TECHNOLOGY PROJECTIONS. DEVELOPMENT IN EXPLORATORY, ADVANCED, ENGINEERING, OP, SYSTEM PHASES. RDT+E SELECT AIR WARF PROGRAMS/STRATEGIC SYS ANAL/ELINT SYS/MARCORPS R+D CENTRAL TECHNOLOGY SOURCE-NON-NUCLEAR WARHEADS/BALLISTICS/WEAP SAFETY/TGT VULN/GUNS/ARMOR/EMS/CADS/HI PWR VULN/MATERIALS/CW DEFENSE/COMPUTER ECH+INFO SCIENCES/DIGITAL FIRE CONTROL PROGRAMMING/SATELLITE GEODESY. GUN+ORD DEV RANGES LAND, RIVER, FACIL /EMPASS SYS/EM, CHEM, LASER, METAL LAB. COMPUTERS-GP FACIL CDC6700, IBM7030, IBM36040, IBM1401, UDT, PERIPHERALS/ DIGITAL FC FACIL UNIVAC1212, UNIVAC1210 3, UNIVAC1219 3, CHANCO, AN-UYK-7, EAI680 4, EAI693 2, AN-ASQ-6/SUBSYS SEL840A, PDP8L, PDP8, EAI380, HP2116A/ POSEIDON-POLARIS FC FACILITY/HYBRID FACILITY EAI640, EAR680 2, 693+TR48/ BATCH+GRAPHICS+CONVERSATIONAL+HYBRID TERMINALS/ANALOG FACIL TRI0 4.

NOT REPRODUCIBLE

INSTALLATION NAVAL AIR TEST CENTER, PATUXENT RIVER, MD.

RADM HENRY L MILLER MR JOHN B PARADIS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	25.840	31.206
TOTAL PROCUREMENT	11.975	12.834
TOTAL O+M	6.926	4.734
TOTAL OTHER	19.059	20.880
TOTAL ANNUAL LAB	63.800	69.654
TOTAL IN-HOUSE	58.066	63.411
TOTAL IN-HOUSE RDT+E	23.827	28.833
ANNUAL OPERATING COST	12.309	13.588

PERSONNEL	PERSONNEL DATA (END CF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF		
MILITARY	1158	0	157		1001
CIVILIAN	2198	1	421		1777
TOTAL	3356	1	578		2778

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
6861	741.022	186.264	3094.351	4021.437	114.812	28.229

...MISSION

COORDINATE AND PERFORM TEST AND EVALUATION OF AIRCRAFT WEAPONS SYSTEMS, THEIR COMPONENTS AND RELATED EQUIPMENT, CONDUCT TEST PILOT TRAINING, PROVIDE TECHNICAL ADVICE AND ASSISTANCE TO BIS, NASC, CONTRACTORS, ETC.

...CURRENT IMPORTANT PROGRAMS

EVALUATION OF NEW AIRCRAFT A7E EA6B AH1J KA6D A4M P3C F14 HARRIER HELO, GROUND SUPPORT EQ. CLEARANCE OF VARIOUS STORES + RACKS ON VARIOUS A/C. ELECTRONIC WARFARE EVALS/SHCEHORN/TRIM/EMPASS A6 RF4B F4J A6A TRISAT. DEVELOPMENT AND EVAL OF ASW SYSTEMS P3C, TACTICAL DATA CENTER AND A-NEW. DEVELOPMENT AND EVAL OF ALL WEATHER AND AUTOMATIC CARRIER LANDING SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP AND TEST CONCEPTS FOR OPERATING AIRPLANES FROM CARRIERS// EVAL AIRCRAFT MAINTENANCE AND RELIABILITY// PERFORM ACCELERATED SERVICE TESTS AND SMOKE ABATEMENT EVALS//PERFORM ELECTROMAGNETIC COMPATIBILITY TESTS// DEVEL AND EVAL AIRCRAFT ELEC SYSTEMS//RESEARCH AND DEVELOP AIRCRAFT INSTRUMENTATION AND DATA GATHERING DEVICES AND SYSTEMS//ESTABLISH STORE RELEASE ENVELOPES//RECOMMEND DESIGN CHANGES TO AIRCRAFT//CONDUCT NAVY PRELIM EVALS AND FLEET INTROD PROGRAMS//MAJOR FACILITIES//CATAPULTS AND ARRESTING GEARS//INTERFERENCE TEST HANGAR//AVIONICS LAB//INSTRUMENTED THEODOLITE RADAR + ECM RANGE//EXTENSIVE ELEC AND ENVIRONMENTAL LABS// EXTENSIVE INSTRUMENTATION, TELEMETRY, AND COMPUTER CAPABILITY//ENGINE TEST CELLS//OVER 100 TEST AIRCRAFT//LONG RUNWAYS//AIRCRAFT WEIGHING SCALES//HYDROFOIL SEAPLANE TEST CAPABILITY.

INSTALLATION NAVAL ELECTRONICS LABORATORY CENTER, SAN DIEGO, CALIF.
CAPT M D VAN ORDEN DR C E BERGMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	32.707	40.146
TOTAL PROCUREMENT	1.153	0.255
TOTAL O+M	5.139	6.567
TOTAL OTHER	3.516	2.399
TOTAL ANNUAL LAB	42.515	49.367
TOTAL IN-HOUSE	40.148	44.150
TOTAL IN-HOUSE RDT+E	30.468	35.304
ANNUAL OPERATING COST	9.021	12.283

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	126	3	45	81
CIVILIAN	1412	52	699	713
TOTAL	1538	53	744	794

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1944	571.413	113.284	176.445	860.942	10.906	29.968

...MISSION
TO CONDUCT A PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST, EVALUATION, SYSTEMS INTEGRATION AND FLEET ENGINEERING SUPPORT IN COMMAND CONTROL AND COMMUNICATIONS TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS
OPERATIONAL APPLICATIONS OF ELECTRO-OPTICS
MESSAGE PROCESSING AND DISTRIBUTION SYSTEM FOR CVAN 68
IMPROVEMENT OF FPM SUBMARINE COMMUNICATIONS
SATELLITE/FLEET DIGITAL DATA LINK COMMUNICATIONS DEVELOPMENT
SYSTEM CONCEPTS FOR INTEGRATED WORLD WIDE OCEAN SURVEILLANCE SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FUNCTIONS--ASSURE MAXIMUM RDT+E CONTRIBUTIONS TO OPERATIONAL CAPABILITY IN COMMAND CONTROL AND COMMUNICATIONS THRU STRONG TECHNICAL DIRECTION, COORDINATION OF DESIGNATED NAVY COMMAND AND CONTROL PROGRAMS. DEVELOP A BALANCED INTEGRATED PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST, EVALUATION, SYSTEM INTEGRATION, AND FLEET ENGINEERING SUPPORT. DEVELOP AN OPTIMUM SCIENTIFIC AND PHYSICAL ENVIRONMENT FOR THE ADVANCEMENT OF COMMAND CONTROL AND COMMUNICATIONS TECHNOLOGY. FACILITIES--ADVANCED COMPUTER SCIENCE CENTER, MICROELECTRONICS LAB, ENVIRONMENTAL TEST FACILITY, LASER RESEARCH LAB, SIXTY FOOT DIA RADIO TELESCOPE, ANTENNA MODEL RANGES, HUMAN FACTORS LAB, SYSTEMS EVALUATION FACILITIES, EX USS BUNKER HILL SYSTEMS TEST BED, APPLIED SYSTEMS DEVELOPMENT AND EVALUATION CENTER.

INSTALLATION NAVAL EXPLOSIVE ORDNANCE DISPOSAL FACILITY, INDIAN HEAD, MD.

BOBBY J. BROWN, CDR, USN COMMANDING OFFICER LIONEL A. DICKINSON, TECH. DIR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.115	2.852
TOTAL PROCUREMENT	1.732	1.895
TOTAL O+M	0.146	0.060
TOTAL OTHER	0.627	0.543
TOTAL ANNUAL LAB	3.620	3.350
TOTAL IN-HOUSE	2.329	2.693
TOTAL IN-HOUSE RDT+E	3.757	0.675
ANNUAL OPERATING COST	0.230	0.550

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	57	0	12		45
CIVILIAN	132	0	13		119
TOTAL	189	0	25		164

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET) LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1084	37.327	26.759	33.914	98.000	4.707	0.915

...MISSION

CONDUCT RDT+E IN TECH MATTERS FOR EOD AND RENDER SAFE PROCEDURES FOR CONVENTIONAL AND SPEC WEAPONS GUIDED MISSILES, B+C MUNITIONS, EQUIP, US AND FOREIGN.

...CURRENT IMPORTANT PROGRAMS

EXPLOSIVE ORDNANCE DISPOSAL (EOD) PROCEDURE--PUBLICATIONS

EXPLOR DEVEL OF EOD EQUIPMENT FOR PROCEDURES.

ADV DEVEL OF EOD EQUIP FOR PROCEDURES

ADMIN IN-SERVICE ENGINEERING FOR EOD EQUIP.

ADMIN EOD ALLOWANCES FOR PUBLICATIONS AND EQUIPMENTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP EOD PROCEDURES, PUBLICATIONS FOR JOINT SERVICE. DEVELOP EQUIPMENT REQUIRED TO PERFORM EOD PROCEDURES. TECHNICALLY MANAGE AVAILABILITY OF REQUIRED EOD EQUIPMENT.

MAJOR EQUIPMENT AND FACILITIES CAPABILITIES--LIBRARY FOR ORDNANCE DATA

ORDNANCE STOWAGE, DISASSEMBLY AND ANALYSIS ORDNANCE SURFACE AND UNDER-WATER TESTS.

INSTALLATION NAVY TOXICOLOGY UNIT, NATIONAL NAVAL MEDICAL CENTER, BETHESDA, MD.
CAPT J SIEGEL MSC USNR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.180	0.179
TOTAL PROCUREMENT	0.000	0.000
TOTAL C+M	0.000	0.000
TOTAL OTHER	0.120	0.160
TOTAL ANNUAL LAB	0.300	0.339
TOTAL IN-HOUSE	0.300	0.339
TOTAL IN-HOUSE RDT+E	0.180	0.179
ANNUAL OPERATING COST	0.010	0.010

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	17	0	6	11
CIVILIAN	8	0	4	4
TOTAL	25	0	10	15

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	2.260	1.400	1.416	5.076	1.872	3.600

...MISSION

EVAL TOXIC POTENTIAL MATERIAL AND EQUIP ABOARD SUBMARINES DEV SOLUTIONS TO TOXICOLOGIC PROBLEMS AFLOAT. CONDUCT RDT&E IN OPERATIONAL TOXICOLOGY AND HEALTH ENGINEERING.

...CURRENT IMPORTANT PROGRAMS

CHRONIC INHALATION TOXICITY OF DICHLOROACETYLENE TO ANIMALS
ACUTE INHALATION TOX OF CO IN RGENTS UNDER HYPERBAROSIS
TOXICITY OF COMBUSTION PRODUCTS OF AIRCRAFT FIRES
TOXICITY OF TRACE CONTAMINANTS IN SUBMARINE ATMOSPHERES
TOX OF POTENTIAL TORPEDO PROPELLANTS AND CHEMILUMINESCENT MATERIALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT EXPLORATORY STUDIES IN HYPERBARIC TOXICOLOGY CHRONIC AND SUB-ACUTE INHALATION STUDIES OF SUB ATMOS CONTAMINATION. BROAD BASED TOX SCREENING OF POTENTIALLY HAZARDOUS MATERIAL & EQUIP-6 ROCHESTER AMBIENT PRESSURE INHALATION CHAMBERS 6 LEACH 3CL AMBIENT INHALATION CHAMBERS 8.59L 50 PSIG HYPERBARIC EXPOSURE CHAMBER ANALYTIC AUTO BIOCHEM AND GC IR UV INSTR CAPABILITIES-MAJOR TOXICOLOGY SCREENING TECHNIQUES IN-DEPTH LONG TERM INHALE STUDY AND LIMITED HYPERBARIC INHALATION STUDY CHEM LAB WITH 7 POINT ON-LINE AUTO CHAMBER AIR SAMPLING AND ANALYSIS SYSTEM.

INSTALLATION NAVAL WEAPONS CENTER, CHINA LAKE, CALIF.

CAPTAIN M. R. ETHERIDGE, MR. H. G. WILSON, TECHNICAL DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	96.359	90.000
TOTAL PROCUREMENT	44.756	42.500
TOTAL O+M	4.450	4.000
TOTAL OTHER	39.510	28.600
TOTAL ANNUAL LAB	185.083	165.100
TOTAL IN-HOUSE	102.173	102.600
TOTAL IN-HOUSE RDT+E	63.547	65.500
ANNUAL OPERATING COST	42.782	44.500

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	
MILITARY	723	0	26	697
CIVILIAN	4851	92	1409	3442
TOTAL	5574	92	1435	4139

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB ADMIN	OF SQUARE FEET) OTHER	TOTAL	REAL PROP	EQUIP	
1095805	1680.971 220.422	5215.541	7116.934	227.449	84.301	

1. MISSION

TO CONDUCT A PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST & EVALUATION, SYSTEMS INTEGRATION AND FLEET ENGINEERING SUPPORT IN NAVAL WEAPONS SYSTEMS PRINCIPALLY FOR AIR WARFARE AND TO CONDUCT INVESTIGATIONS INTO RELATED FIELDS OF SCIENCE AND TECHNOLOGY.

2. CURRENT IMPORTANT PROGRAMS

HARPOON--AIR- AND SURFACE-LAUNCHED SHIP ATTACK SYSTEMS
FUEL AIR EXPLOSIVE WEAPON SYSTEM
AGILE-ADVANCED SHORT RANGE AAM SYSTEM
BULLDOG-CLOSE AIR SUPPORT WEAPON SYSTEM
NIGHT ATTACK--FLIE, APC, INDAH.

3. FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS INCLUDE PROPULSION AND PROPELLANT RESEARCH, EXPLOSIVE RESEARCH, SOLID STATE DEVICE DESIGN, AEROMECHANICAL INVESTIGATIONS, FLIGHT AND LIVE FIRING TEST, ENVIRONMENTAL DETERMINATIONS GUIDANCE AND CONTROL TECHNOLOGY, SYSTEMS AND OPERATIONS ANALYSIS SIMULATION, MISSILE SYSTEMS DEVELOPMENT AND BASIC PHYSICAL AND CHEMICAL RESEARCH, FACILITIES INCLUDE MICHELSON LAB, WARHEAD RESEARCH LAB, GROUND + AIR CRAFT RANGES, SUPERSONIC AND SMALLER TEST TRACKS, SOLID STATE DEVICES LAB, FUZE MODEL RANGE, ATMOSPHERIC APPLICATIONS LAB, AIRCRAFT SURVIVABILITY RANGE, TECHNICAL LIBRARY, MACHINE SHOP, HEAT TREAT + ELECTROPLATING SHOPS, NAVAL AIR FACILITY UNFAMILIAR TARGET RGE, ECHC RGE, AEROBAL + LASER SIMUL LABS SPECIALIZED EQUIPMENT INCLUDES SCANNING ELECTRO MICROSCOPE UNIVAC 1108 NUMERICAL CONTROLLED MACHINETOOLS, CAPRI RADAR, ANALOG COMP, ANECHOIC CHAMBER.

INSTALLATION NAVAL UNIT, FORT DETRICK, FREDERICK, MD.

CDR N L FREEMAN MSC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.099	0.044
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.125	0.176
TOTAL ANNUAL LAB	0.224	0.220
TOTAL IN-HOUSE	0.224	0.220
TOTAL IN-HOUSE RDT+E	0.099	0.044
ANNUAL OPERATING COST	0.005	0.014

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	13	2	3		10
CIVILIAN	0	0	0		0
TOTAL	13	2	3		10

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	0.000	2.025	0.081	2.106	0.000	0.000

...MISSION
PROMOTE MODERN MED SCIENTIFIC RESEARCH JOINTLY WITH DEPT OF THE ARMY AND EVALUATE IMPROVE AND DEV BIOLOGIC DECONTAMINATION METHODS OF GAS DISSEMINATORS.

...CURRENT IMPORTANT PROGRAMS
DEVELOPMENT OF NEW EXPERIMENTAL VACCINES
ENVIRONMENTAL PREVENTION AND CONTROL OF AIRBORNE DISEASES
CLEANSING OF HOSP EQUIP AND SPACES WITH GASEOUS DISINFECTANTS
BIOLOGICAL DECONTAMINATION PROCEDURES FOR SHORE AND AFLOAT USE
BIODECONTAMINATION OF DEEP SUBMERGENCE VEHICLES HABITATS AND EQUIP

...FUNCTIONS/EQUIPMENT/CAPABILITIES
DEVELOP MATERIALS AND METHODS COMPATIBLE WITH NAVY REQUIREMENTS FOR THE PREVENTION AND CONTROL OF DISEASES OF NATURAL AND UNNATURAL ORIGIN. MAJOR LAB EQUIP AND FACILITIES FOR SAFE HANDLING OF PATHOGENIC MICROORGANISMS MADE AVAILABLE BY ARMY. DISSEMINATORS WITH ANCILLARY EQUIP FOR STERILIZATION OF LABS HOSPITALS SUBMARINES AND DEEP SEA SUBMERGENCE VEHICLES HABITATS AND EQUIP. CAPABILITY IN BIOLOGICAL DECONTAMINATION, VIRAL AND BACTERIAL SEROLOGY VIRAL AND TISSUE CULTURE AND AEROBIOLOGY.

INSTALLATION NAVAL MEDICAL RESEARCH UNIT NO.1, BERKELEY, CALIF.

GOR J W FRESH MC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.084	0.050
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.170	0.184
TOTAL ANNUAL LAB	0.254	0.234
TOTAL IN-HOUSE	0.254	0.234
TOTAL IN-HOUSE RDT+E	0.084	0.050
ANNUAL OPERATING COST	0.030	0.033

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRGF		
MILITARY	15	2	6		9
CIVILIAN	3	1	2		1
TOTAL	18	3	8		10

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	1.550	0.360	0.080	1.990	0.000	0.259

...MISSION

RESEARCH ON AIRBORNE INFECTIOUS DISEASES. DIRECT SUPPORT OF LO TEMP PROJ
DEV OF AEROSOL HAZARD CONTROL IN DENTAL CLINICS.

...CURRENT IMPORTANT PROGRAMS

STUDIES ON ENVIRONMENTAL CONTROL OF RESPIRATORY DISEASE AGENTS
LO TEMP EFFECTS ON SUSCEPTIBILITY TO AIRBORNE INFECTIONS
POTENTIAL AEROSOL HAZARDS DURING DENTAL OPERATORY PROCEDURES
STUDY OF INFECTIONS IN HYPERBARIC CONDITIONS
POTENTIAL DISEASE HAZARDS TO NAVY DIVERS AND ACQUANAUTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BACTERIOLOGY MYCOLOGY BICPHYSICS AND OTHER APPROPRIATE FIELDS RELATIVE
TO PARTICULAR PROBLEMS OF AIRBORNE DISEASE OF MIL IMPORTANCE. STUDY OF
PROTEIN ELECTROLYTE LIVER CARDIOPULMONARY AND OTHER FACTORS IN HOST RES-
PONSE TO INFECTION. IMMUNOLOGIC AND PHYSIOLOGIC STUDIES ON N MENINGITI-
DIS. TEST AND IMPROVE PLAGUE VACCINE REFERENCE STANDARDS STUDIES ON
PATH AND IMMUNITY OF DISEASE. DEV RAPID DIAG PPROC FOR ARBO AND RESPIRA-
TORY VIRUSES.

INSTALLATION NAVAL ORDNANCE LABORATORY, WHITE OAK, MD.

CAPTAIN GEORGE G BALL DR. GREGORY K HARTMANN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	53.080	55.000
TOTAL PROCUREMENT	9.339	9.863
TOTAL O+M	2.599	3.071
TOTAL OTHER	5.848	5.292
TOTAL ANNUAL LAB	70.866	73.224
TOTAL IN-HOUSE	54.095	55.858
TOTAL IN-HOUSE RDT+E	40.627	42.000
ANNUAL OPERATING COST	18.435	18.923

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	53	1	27		26
CIVILIAN	2907	118	1016		1891
TOTAL	2960	119	1043		1917

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1066	355.903	75.236	739.599	1170.538	46.972	28.321

...MISSION

CONDUCT EXPLORATORY, ADVANCED, ENGINEERING AND OPERATIONAL SYS. DEV TEST AND TECH EVAL OF ORD SYS, COMPONENTS AND MATLS PERTAINING TO EXISTING ADVANCED AND PROP WEAPONS, PRINCIPALLY IN AREAS OF STRATEGIC, SURFACE AND UNDERSEA WARFARE. CONDUCT RESEARCH IN SCIENCES RELATED TO ORDNANCE.

...CURRENT IMPORTANT PROGRAMS

ZAP HYPERVELOCITY WEAPON SYSTEM

TORPEDO MK 48-1 DEVELOPMENT

NEW MINE WARFARE ADVANCES INCLUDING CAPTOR AND THE ADVANCED DESTRUCTOR
NUCLEAR WEAPON EFFECTS RESEARCH INCLUDING VULNERABILITY AND HARDENING
SENSORS FOR INTERDICTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT INDEPENDENT AND APPLIED RES IN AERO AND HYDROBALLISTICS, EXPLOSIVES, MATERIALS + OTHER FIELDS OF PHYSICS, CHEMISTRY + MATH. CONDUCT PROG OF APPL RES, EXPLOR, ADVANCED, ENGR AND OPERATIONAL SYS DEV OF AND TECH EVAL OF ORD SYS, COMPONENTS AND MATLS PRINCIPALLY IN FIELDS OF MISSILES NUC WPNS MINES, TORPEDOES, FUZES, FIRE CONT. GUIDANCE AND SMALL CRAFT ARMAMENT. PERFORM PROD ENGR ON, AND PREPARE DES DISCLS FOR ITEMS OF ORD DESIGNED AND DEVEL AT NOL. WIND TUNNELS TO M20, BALL RANGES FOR FREE FLT MODEL STUDIES, HYDRO TANK 1.75M GAL CAP FOR STDY REL LGT MODELS AT HIGH SPEED ENTRY. CENTRIFUGE TO STDY U/W EXPLOSIONS, FACIL FOR RES IN CHEM OF EXPLOSIVES AND PROPELLANTS, EXTENSIVE LAB AND FIELD FACILITIES FOR TESTING ORDNANCE UNDER NATURAL AND/OR SIMULATED CONDITIONS, MAGNETIC STRUC FAC TO STDY MAG CHARACT OF SUBMARINE SHIPS AND SATELLITES.

INSTALLATION NAVAL SHIP R&D LABORATORY, PANAMA CITY, FLA.

CAPT. L.O.G. WHALEY, CO. DR. NORMAN H. JASPER, TECHNICAL DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	10.821	12.839
TOTAL PROCUREMENT	1.049	1.288
TOTAL U+M	1.688	1.495
TOTAL OTHER	1.363	1.372
TOTAL ANNUAL LAB	14.921	16.786
TOTAL IN-HOUSE	12.552	14.845
TOTAL IN-HOUSE RDT+E	8.959	11.021
ANNUAL OPERATING COST	4.692	4.922

PERSONNEL	PERSONNEL DATA (END CF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	163	4	15	148
CIVILIAN	614	11	241	373
TOTAL	777	15	256	521

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
641	165.304	35.296	292.336	492.936	14.352	10.456

...MISSION
TO SUPPORT THE MISSION OF THE NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER BY CARRYING OUT ASSIGNED RESEARCH AND DEVELOPMENT TASKS IN SCIENTIFIC AND ENGINEERING FIELDS.

...CURRENT IMPORTANT PROGRAMS
DETECTION + CLASSIFICATION OF UNDERWATER OBJECTS INCLUDING BURIED MINES. THEORY + TACTICAL DOCTRINE FOR MINE COUNTERMEASURES. DEFENSE AGAINST SWIMMER ATTACK. INTEGRATED SWIMMER/DIVER SYSTEMS AND RELATED EQUIPMENT. ACOUSTIC WARFARE SYSTEMS FOR SURFACE SHIPS AND SUBMARINES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
PLAN + CONDUCT RDT+E + PROVIDE SUPPORT TO OPERATING FORCES, NAVAL + GOV AGENCIES IN SURFACE, SUBSURF + AIRBORNE MINE DEFENSE ACOUSTIC + TORPEDO COUNTERMEASURES INSHORE WARFARE AND RELATED SC + ENG. COMPUTERS.
\$3.5M CM EVALUATOR, SDS 9300 DIGITAL + 2 ADI 256 ANALOGS \$1M B5500, 2 GULF RESEARCH PLATFORMS \$5M IN 100 + 60 WATER WITH LIVING/LABS FOR 30 + 4 PEOPLE \$220K OPTICAL TRACKING SYS, \$300K MODEL TOM BASIN, \$150K ELECTR TRACK RANGE, UNDERWATER ACOUSTICS FAC- \$200K TRACK RANGE, \$210K ANALOG DATA ANAL, \$500K TRANSDUCER DEV + EVAL, \$200K TRANSDUCER TEST POOL, \$425K SIM + SIGNATURE GENERATOR, \$50K TEST PLATFORM, MAGNETICS FAC \$350K SIM, \$53K HELMHOLTS COIL, \$110K SWEEP SIM, \$330K TARGET DETECT + CLASS RANGE, \$100K PRES SIGNATURE SIM, \$80K NET SUBMERSIBLE, \$20K MARINE ANIMAL FAC. \$7.5M MAN-RATED OCEAN SIM FAC UNDER CONSTRUCTION.

INSTALLATION NAVAL TRAINING DEVICES CENTER, ORLANDO, FLA.
CAPTAIN F. H. FEATHERSTON CO DR H. H. WOLFE TECHNICAL DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	17.922	14.466
TOTAL PROCUREMENT	68.683	53.416
TOTAL O+M	9.821	9.862
TOTAL OTHER	8.548	6.597
TOTAL ANNUAL LAB	88.966	78.539
TOTAL IN-HOUSE	22.126	22.489
TOTAL IN-HOUSE RDT+E	18.648	11.886
ANNUAL OPERATING COST	5.687	5.668

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PROFS	TOTAL PROF	NON- PROF
MILITARY	49	1	23	26
CIVILIAN	1148	12	384	864
TOTAL	1197	13	327	878

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
52	93.588	281.356	121.562	416.496	2.794	3.183

...MISSION

IMPROVE THE EFFECTIVENESS OF THE NAVAL TRAINING PROGRAM THROUGH THE CONDUCT OF RESEARCH LEADING TO, AND THE DEVELOPMENT AND PRODUCTION OF, TRAINING EQUIPMENT; PROVIDE AND CONTROL LOGISTIC AND MATERIAL SUPPORT OF SUCH EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

OPTICAL TECHNOLOGIES IN NAVY TRAINING DEVICES
ELECTRONIC TECHNIQUES FOR NAVY TRAINING DEVICES
PROJECTED VISUAL SIMULATION OF THE NAVAL OPERATIONAL ENVIRONMENT
GENERAL SIMULATION MODELING FOR NAVY TRAINING DEVICES
HUMAN FACTORS IN THE DESIGN AND USE OF NAVAL TRAINING SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EFFORT IS ALLOCATED TO THOSE AREAS OF TECHNOLOGY + METHODOLOGY WHICH SHOW GREATEST PROMISE OF SIGNIFICANT IMPROVEMENT TO TRAINING DEVICE DESIGN. INVESTIGATIONS ARE CONDUCTED BY THE APPLIED OPTICS + EARTH SCIENCES, ELECTRONIC TECHNIQUES RESEARCH, TRAINING SYSTEMS RESEARCH, TRAINING SIMULATION COMPUTER SCIENCES + HUMAN LEARNING RESEARCH LABORATORIES. THESE LABORATORIES ADVANCE THE STATE OF THE ART IN SIMULATION TECHNOLOGY + METHODOLOGY + MAINTAIN LEADERSHIP IN THE THEORY + CONCEPT OF SIMULATION FOR TRAINING INVESTIGATION, DISSEMINATE + EXCHANGE RESEARCH INFORMATION RELATED TO TRAINING DEVICES SIMULATION TECHNIQUES, + MEANS FOR INTEGRATING MAN + MACHINE + COORDINATE FORMULATION OF RESEARCH REQUIREMENTS TO TO FILL GAPS IN TECHNICAL AND ENGINEERING KNOWLEDGE.

INSTALLATION: NAVAL SHIP R&D LABORATORY, ANNAPOLIS, MD.

CAPTAIN A. POLNARUK H. V. NUTT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	17.379	18.215
TOTAL PROCUREMENT	0.453	2.460
TOTAL C+M	2.479	2.890
TOTAL OTHER	1.322	1.169
TOTAL ANNUAL LAB	21.633	22.534
TOTAL IN-HOUSE	20.024	20.294
TOTAL IN-HOUSE RDT+E	15.984	16.170
ANNUAL OPERATING COST	6.400	6.600

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	6	2	4	2
CIVILIAN	968	31	446	522
TOTAL	974	31	450	524

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP EQUIP
66	337.000	42.000	120.000	499.000	13.411	8.656

...MISSION

TO SUPPORT THE MISSION OF THE NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER BY CARRYING OUT ASSIGNED SHIPS RESEARCH AND DEVELOPMENT TASKS IN SCIENTIFIC AND ENGINEERING FIELDS.

...CURRENT IMPORTANT PROGRAMS

ELECTRICAL CABLES AND FITTINGS
ACOUSTIC SILENCING--SUBMARINES
SHIPBOARD POLLUTION ABATEMENT
SHIPBOARD FIRE PROTECTION
HYDROFOIL CRAFT PROPULSION AND AUXILIARY MACHINERY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT RESEARCH DEVELOPMENT TEST EVALUATION AND PROVIDE SUPPORT TO THE OPERATING FORCES NAVAL AND GOVERNMENT AGENCIES AS ASSIGNED IN THE AREAS OF NAVAL SHIPBOARD MACH SYS SHIPS ATMOSPHERE CONDITIONING AND POLLUTION CONTROL SHIP ELECTRICAL SYS SHIP AUTOMATION AND CONTROL SYS SHIP MATERIAL SHIP SILENCING AND RELATED FIELDS OF SCIENCE AND ENGINEERING.

FACILITIES: OCEAN PRESSURE, SOUND AND VIBRATION MEASUREMENT, ACOUSTICAL RESEARCH FLUID DYNAMICS, MAGNETIC FIELDS, ACOUSTIC DATA INFORMATION CENTER, MACHINE-HUMAN FACTORS AND VISUAL DISPLAYS, TECHNICAL SERVICES, FUEL CELL, WATER CHEMISTRY, METAL FATIGUE, NONDESTRUCTIVE TEST, WELDING ANALYSIS, RUBBER COMPOUND.

INSTALLATION NAVAL MEDICAL RESEARCH UNIT NO.3, CAIRO, EGYPT

CAPT H SPARKS MC USN SR SCI DR H HOOGSTRAAL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.372	1.544
TOTAL PROCUREMENT	0.000	2.300
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.378	0.360
TOTAL ANNUAL LAB	1.750	1.904
TOTAL IN-HOUSE	1.750	1.904
TOTAL IN-HOUSE RDT+E	1.372	1.544
ANNUAL OPERATING COST	0.278	0.292

PERSONNEL	PERSONNEL DATA (END OF FY 1972)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	33	7	11		22
CIVILIAN	117	12	18		99
TOTAL	150	19	29		121

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
5	25.000	7.200	44.000	16.000	2.791	0.561

...MISSION

RESEARCH INTO ETIOLOGY ECOLOGY DISTRIBUTION TRANSMISSION PATHOPHYSIS
PREVENTION CONTROL AND TREATMENT OF INFECTIOUS AND ENDEMIC DISEASE OF
MIL MED INTEREST IN MIDEAST AND AFRICA.

...CURRENT IMPORTANT PROGRAMS

PATHOPHYSIOLOGY OF LOUSE BORNE RELAPSING FEVER
IMMUNOLOGY AND ECOLOGY OF MALARIA IN ETHIOPIA
PATHOPHYSIOLOGY AND THERAPY OF SCHISTOSOMIASIS
ELUCIDATE ROLE OF TICKS AS HUMAN DISEASE VECTOR
ECOLOGY ARBOVIRUS INCLUDING YELLOW FEVER IN ETHIOPIA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ARBOVIRUS LAB ANIMAL PRODUCTION FACILITIES NUTRITIONAL BIOCHEM TICK
BIOCHEM AND PHYSIOLOGY MEDICAL ZOOLOGY AND ENTOMOLOGY CLINICAL INVEST
AND MEDICAL WARDS RICKETTSIOLOGY TISSUE CULTURE FACILITIES MENINGO-
COCCUS AND ENTERIC BACILLI LAB VETERINARY PATHOLOGY PARASITOLOGY
EXPERIMENTAL AND ANATOMIC PATHOLOGY

INSTALLATION PACIFIC MISSILE RANGE, POINT MUGU, CALIF.

COMMANDER- RADM H.S. MOORE/TECHNICAL DIRECTOR- W L MILLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	67.659	64.887
TOTAL PROCUREMENT	4.209	3.443
TOTAL O+M	6.228	5.158
TOTAL OTHER	17.126	17.066
TOTAL ANNUAL LAB	95.222	96.554
TOTAL IN-HOUSE	64.428	64.891
TOTAL IN-HOUSE RDT+E	43.713	44.382
ANNUAL OPERATING COST	24.736	25.242

PERSONNEL	PERSONNEL DATA (END OF FY 1971)				NOA- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	860	8	94		766
CIVILIAN	3057	7	428		2649
TOTAL	3917	15	522		3415

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
29164	50.000	323.200	2000.000	2350.000	149.452	88.750

...MISSION

TO PROVIDE RANGE SUPPORT FOR THE DEPARTMENT OF DEFENSE AND OTHER DESIGNATED GOVERNMENT AGENCIES FOR LAUNCHING TRACKING AND COLLECTING DATA IN GUIDED MISSILE SATELLITE AND SPACE VEHICLE RESEARCH DEVELOPMENT EVALUATION AND TRAINING PROGRAM AND ACTUAL OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

RANGE SUPPORT OF 268 NATIONAL RANGE USER PROGRAMS INCL POLARIS OT +M111.
MODIF AND DEV OF RANGE CAPABILITY FOR SUPPORT OF F14A-PHOENIX PROGRAM.
MODIF AND DEV OF FACILITIES FOR SUPPORT OF NAVAL RESERVE COMPONENTS.
DEV OF UNDERWATER T+E RANGE IN HAWAIIAN AREA FOR ASW WEAPONS.
DEV OF RANGE FACILITIES IN HAWAIIAN AREA FOR FLEET EVAL OPERATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATE NATIONAL SEA TEST RANGE PT MUGU CAL/KAUAI, HAW/BROAD OCEAN AREA.
OPERATE MISSILE RANGE SAFETY INSTRUMENTATION FACILITIES JOHNSTON ATOLL.
OPERATE BARKING SANDS UNDERWATER RANGE KAUAI, HAWAII.
TRAJ.+ TELEMETRY SYS POINT MUGU/SAN NICOLAS ISLAND CAL BARKING SANDS HAW
SAN NICOLAS ISLAND 14000 ACRES TRACKING LAUNCH PROBES DRONE RECOVERY
11000 AND 5500 FT RUNWAY PT MUGU/10000 FT SAN NICOLAS/12000 FT BARSANHAW.
LOCAL AND WORLD-WIDE COMMUNICATION NETWORKS + AREA FREQ COORD MUGU + HAW.
MAJOR DATA REDUCTION/COMPUTER CENTER AND REAL TIME DATA CENTER PT MUGU.
WEATHER CENTER WITH COMPUTER REDUCTION MUGU MET PROBE FAC HAWAII.
5X10 MILE UNDERSEA TEST RANGE 400-1000 FATHOMS WITH 37 HYDROPHONE ARRAY.
LAUNCH FAC 15KLBS MUGU/20KLBS SAN NICOLAS/6KLBS JOHNSTON IS/MET,BAR SAN
MOBILE SYS OPTICS RADAR 5 TELEMETRY+13 RANGE AIRCRAFT USNS WHEELING AGM8.

INSTALLATION: NAVAL ORDNANCE MISSILE TEST FACILITY, WHITE SANDS, N. MEX.

G D HOWARD CAPTAIN USN COMMANDING OFFICER DR W W JOHN CHIEF ENGINEER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.708	1.290
TOTAL PROCUREMENT	0.372	0.529
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.496	1.600
TOTAL ANNUAL LAB	3.576	3.399
TOTAL IN-HOUSE	3.139	3.221
TOTAL IN-HOUSE RDT+E	1.490	1.130
ANNUAL OPERATING COST	0.670	0.737

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	PROF	
MILITARY	195	2	52	143	
CIVILIAN	89	1	4	85	
TOTAL	284	3	56	228	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
112	84.742	30.719	236.239	351.700	6.552	3.361

...MISSION

SUPPORT THE NAVY GUIDED MISSILE AND ROCKET PROGRAM INCLUDING GROUND AND FLIGHT TESTING. PARTICIPATE IN THE OPERATION OF THE DEPT OF DEFENSE INTEGRATED MISSILE TEST RANGE AT WHITE SANDS.

...CURRENT IMPORTANT PROGRAMS

FLIGHT-TEST TALOS, TERRIER, TARTAR AND STANDARD MISSILES.
 FLIGHT-TEST TALOS ANTIRADIATION MISSILE.
 FLIGHT-TEST STANDARD ANTIRADIATION MISSILE.
 TACTICAL ELECTRONIC WARFARE DECEPTION PROGRAM.
 AERCBEE ROCKET PROGRAM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT-TEST TALOS TERRIER TARTAR STANDARD SURFACE TO AIR GUIDED MISSILES.
 FLIGHT-TEST STANDARD ANTIRADIATION MISSILE, AIR TO SURFACE.
 LAUNCH AERCBEE 150 170 AND 350 SOUNDING ROCKETS FOR UPPER ATMOS STUDY.
 CONDUCT NAVY AIR WEAPON BOMB TESTS.
 CONDUCT FEASIBILITY TEST FOR LOW ALTITUDE SUPERSONIC TARGET.

INSTALLATION: NAVAL MEDICAL FIELD RESEARCH LABORATORY, CAMP LEJEUNE, N. C.
CAPT JESSE F ADAMS MC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	0.755	1.321
TOTAL PROCUREMENT	0.000	0.000
TOTAL U+M	0.000	0.000
TOTAL OTHER	0.358	0.304
TOTAL ANNUAL LAB	1.113	1.325
TOTAL IN-HOUSE	1.113	1.325
TOTAL IN-HOUSE RDT+E	0.755	1.021
ANNUAL OPERATING COST	0.099	0.175

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	29	7	9	20
CIVILIAN	52	3	9	43
TOTAL	81	10	18	63

ACRFS	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
3	28.226	8.655	15.592	52.471	0.492	0.600

...MISSION
CONDUCT R AND D IN MED AND DENT AND ALLIED FIELDS WITH EMPHASIS ON FIELD AND AMPHIBIOUS MEDICINE.

...CURRENT IMPORTANT PROGRAMS
PREV OF HEMOLYSIS CAUSED BY CUS24 TREAT OF PHOSPHORUS BURNS
PHYSIOLOGIC IMPAIRMENT DUE TO CB PROT CLOTHING IN AMPHIB LANDING
ETIOLOGY OF RESPIRATORY ILLNESS IN MIL PERS
EVALUATION OF FIELD WATER PURIFICATION SYSTEMS
ETIOLOGY OF INFECTIOUS MONONUCLEOSIS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCT RESEARCH IN PROBLEMS OF FIELD AND AMPHIBIOUS MEDICINE TEST MED
EQUIP SUPPLIES CLOTHING AND EQUIP FOR MIL PERS USE.
APPLIED RESEARCH IN BACTERIOLOGY PHYSIOLOGY STRESS PHYSIOLOGY ENTOMOLOGY
ENVIRON BIOLOGY VIROLOGY FIELD MEDICAL EQUIP BIOCHEM AND ANIMAL INVEST

PRESSURE 2-MAN ENVIRONMENTAL CHAMBER, CLIMATIC CHAMBER, MULTIPLEX PHYSIOLOGICAL DATA
RECORDER ELECTRONIC PROGRAMMER FLUOROMETERS RESPIROMETER GAS
PARTITIONER PYRHELIOGRAPH

INSTALLATION NAVAL AIR DEVELOPMENT CENTER, JOHNSVILLE, PA.

CAPT F W EWALD DR H KRUTTER, TECH DIR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	68.150	63.202
TOTAL PROCUREMENT	8.770	6.900
TOTAL O&M	5.641	7.200
TOTAL OTHER	5.671	5.768
TOTAL ANNUAL LAB	88.232	82.868
TOTAL IN-HOUSE	56.205	60.647
TOTAL IN-HOUSE RDT+E	44.925	49.279
ANNUAL OPERATING COST	12.233	13.100

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF	NON- PROF
MILITARY	432	8	94	336
CIVILIAN	2251	24	989	1262
TOTAL	2681	32	1083	1598

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
750	910.000	97.848	298.743	1306.591	22.163	38.418

...MISSION

CONDUCT RESEARCH, DESIGN, DEV, TEST AND EVAL OF AERONAUTICAL SYSTEMS AND COMPONENTS PERFORM RESEARCH AND DEV IN AVIATION MEDICINE

...CURRENT IMPORTANT PROGRAMS

ADVANCED ACOUSTIC SEARCH SENSOR SYSTEMS.
AIRBORNE VLF COMMUNICATION SYSTEMS
ADVANCED AIRBORNE NAVIGATION SYSTEMS.
LIGHT AIRBORNE MULTIPURPOSE SYSTEM (LAMPS).
AIRCREW LIFE SUPPORT SYSTEMS, PROTECTIVE CLOTHING AND DEVICES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RSH, DESIGN, DEVELOP, TEST, LAB AND FLIGHT EVAL, LONG-RANGE AIR WARFARE STUDIES, THEORETICAL ANAL, ENGIN ANAL AND REAS PROTOTYPE DEVELOP OF SYS IN ABN ASW, ATTACK CARRIER WARFARE AND OCEAN SURVEILLANCE ENGIN ANAL ON AERC SYSTEM COMP AND AREAS OF TECHNOLOGY IN ABN ASW SYSTEMS COMMUNICATIONS, NAVIG, DIGITAL COMPTATION, COUNTERMEAS, AEW, FC, AEROSPACE MED, BIOPHYSICAL EFFECTS OF ACCELERATION, HUMAN FACTORS, AIRCREW PERSONAL AND SAFETY EQUIP SPEC A/C CONFIG CONTROL SYSTEM, ABN WEAPONS HAND EQUIP, ABN PHOTO EQUIP, MATERIALS AND PROCESSES USED IN A/C AIRFRAME STRUCTURES AND SUPPORT TO OTHER ACTIVITIES AS DIRECTED.

INSTALLATION NAVAL MEDICAL RESEARCH UNIT NO.4, GREAT LAKES, ILL.

CAPT R C PERKINPAUGH MC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.643	2.675
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.395	0.454
TOTAL ANNUAL LAB	1.038	1.129
TOTAL IN-HOUSE	1.038	1.129
TOTAL IN-HOUSE RDT+E	0.643	0.675
ANNUAL OPERATING COST	0.187	0.200

PERSONNEL	PERSONNEL DATA (END CF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF		
MILITARY	34	7	13		21
CIVILIAN	45	1	8		37
TOTAL	79	8	21		58

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	28.702	11.576	13.649	53.927	0.365	0.398

...MISSION

CONDUCT R AND D IN BIOMED SERVICES PROVIDE DATA ON DISEASE AND MED PROBLEMS OF MIL IMPORTANCE RECOMMEND CONTROL MEASURES FOR COMMUNICABLE DISEASE PROVIDE TRAINING IN RESEARCH TECHNIQUES

...CURRENT IMPORTANT PROGRAMS

MYCOPLASMAS ASSOCIATED WITH RESPIRATORY DISEASE AND BRONCHOPNEUMONIA
ETIOLOGIC AGENTS OF RESPIRATORY DISEASE IN RECRUITS
HOST STUDIES OF ILLNESS SUSCEPTIBILITY
EVAL ANTI-BACTERIAL AGENTS TO ELIMINATE PNEUMOCOCCI IN NASOPHARYNX
EVAL VARIOUS INFLUENZA VACCINE IN RECRUITS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN ETIOLOGY TRANSMISSION CONTROL AND TREATMENT OF COMMUNICABLE RESPIRATORY DISEASE AID MED ACTIVITIES IDENTIFY EPIDEMIC RESPIRATORY DISEASES STUDY MED PROBLEMS OF RECRUIT TRAIN PERS IN R AND D TECHNIQUE EQUIP-INCUBATORS REFRIGERATION UNITS ULTRACENTRIFUGE LIQUID SCINTILLATION SYSTEM OSCILLATOR SPECTROPHOTOMETERS ELECTRON SCOPE RESEARCH IN ECOLOGY AND CONTROL OF COMMUNICABLE DISEASE MICROPLASMA BACTERIOLOGY BIOCHEM BIOMETRIC EPIDEMIOLOGY IMMUNOLOGY AND VIROLOGY.

INSTALLATION NAVY CLOTHING AND TEXTILE RESEARCH UNIT, NATICK, MASS.

COR J.L. PEER, SC, USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+E	0.595	0.613
TOTAL PROCUREMENT	0.000	0.200
TOTAL O+M	0.591	0.578
TOTAL OTHER	0.030	0.026
TOTAL ANNUAL LAB	1.216	1.217
TOTAL IN-HOUSE	1.216	1.217
TOTAL IN-HOUSE ROT+E	0.595	0.613
ANNUAL OPERATING COST	0.115	0.122

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	2	2	2	2
CIVILIAN	66	2	24	42
TOTAL	68	2	24	44

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2	10.000	7.000	1.000	20.000	2.275	0.493

...MISSION
CONDUCT RESEARCH, DEVELOPMENT, TEST AND EVALUATION AND GIVE ENGINEERING SUPPORT IN CLOTHING, TEXTILES AND RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING AND ENVIRONMENTAL AND SPECIAL PROTECTIVE CLOTHING.

...CURRENT IMPORTANT PROGRAMS
DEEP SEA SWIMMER'S SUIT
DAMAGE CONTROL SUIT
HIGH ENERGY LIQUID MISSILE PROPELLANT PROTECTIVE CLOTHING
BUOYANT ANTI-FRAGMENT AND BULLETPROOF VEST
DECOMPRESSION CHAMBER CLOTHING AND TEXTILE ITEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MAJOR FUNCTIONS--
CONDUCT ROT+E IN TEXTILE MATERIALS, LEATHER, PLASTICS, AND RUBBER.
DEVELOP NAVY CLOTHING, ACCESSORIES, AND RELATED ITEMS.
CONDUCT STUDIES IN ENVIRONMENTAL SCIENCES AND LIFE SUPPORT SYSTEMS.
PREPARE SPECIFICATIONS FOR CLOTHING, TEXTILES, FOOTWEAR AND RELATED ITEMS.
COORDINATE STANDARDIZATION IN CLOTHING AREAS.
PROVIDE TECHNICAL SUPPORT TO ALL DOD AGENCIES IN NAVY CLOTHING AREAS.
MAJOR EQUIPMENT AND FACILITIES--
TEXTILE LABORATORIES
COLD TEST CHAMBERS
HYDRO-ENVIRONMENT SIMULATOR
HIGH INTENSITY THERMAL TEST UNIT

INSTALLATION NAVAL AIR PROPULSION TEST CENTER, TRENTON, N. J.

CAPTAIN R. V. HAYES-USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	6.572	10.350
TOTAL PROCUREMENT	4.960	4.400
TOTAL O+M	0.075	0.031
TOTAL OTHER	0.959	0.776
TOTAL ANNUAL LAB	12.566	15.637
TOTAL IN-HOUSE	11.020	11.950
TOTAL IN-HOUSE RDT+E	5.757	7.900
ANNUAL OPERATING COST	7.040	7.652

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	10	0	6	4
CIVILIAN	710	0	155	555
TOTAL	720	0	161	559

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
66	410.097	51.520	135.954	598.371	44.154	12.990

...MISSION

TO TEST AND EVALUATE AIRCRAFT PROPULSION SYSTEMS-THEIR COMPONENTS AND ACCESSORIES AND FUELS AND LUBRICANTS;AND TO PERFORM APPLIED RESEARCH AND DEVELOPMENT LEADING TO CORRECTION OF DESIGN DEFICIENCIES AND SERVICE PROBLEMS.

...CURRENT IMPORTANT PROGRAMS

XF421-PW-400 PERFORM ALT + ENVIRONMENTAL DEVELOPMENT TEST + EVALUATION.
TF34-GE-2 EXPLOR-QUAL TESTS FOR PERFORMANCE ALT-ENVIRONMENTAL CONDITIONS.
TF32-P-412 PERFORM QUAL TESTS IAW MIL-E-5007C SPEC.
AVN FUELS AND LUBES MIL-L-23699 CHARACTERISTICS-SPEC TESTS AND QUALS.
YT422-CP-400 ENVIRONMENTAL QUAL TESTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROVIDE A TEST AND EVALUATION CENTER FOR AIRCRAFT PROPULSION SYSTEMS AND PROPULSION RELATED COMPONENTS.ENVIRONMENTAL CONDITIONS OF FLIGHT AND SERVICE ARE SIMULATED IN TEST CELLS-ON TEST BENCHES-OR IN THE LABORATORY. THE TURBOJET-FAN-LARGE CELLS-CAN SIMULATE ALTITUDES FROM SEA LEVEL TO 80000 FT-WITH TEMPERATURES FROM MINUS 65 DEG TO PLUS 320 DEG F THRUST. STANDS INSTALLED ARE CAPABLE OF MEASURING THRUST TO 50000 LBS. THESE CELLS ARE CAPABLE OF FULLY TESTING THE LARGER JET ENGINES NOW IN NAVY SERVICE. THE TURBOSHAFT CELLS ARE CAPABLE OF SIMULATING ALTITUDES FROM SL TO OVER 40000 FT WITH SPECIFICATION RANGE OF TEMPERATURES. TEST CELL FACILITIES EXIST FOR THE COMPLETE RANGE OF SHSFT POWER ENGINES WITH SUB FACILITIES FOR TEST AND EVALUATION OF ENGINE COMPCNENTS-FUELS-LUBRICANTS -AUX POWER SYSTEMS AND ACCESSORIES.

INSTALLATION NAVAL CIVIL ENGINEERING LABORATORY, PORT HUENEME, CAL.

C.O. WORTHEN A WALLS CAPT CFC USN TECH DIR WILLIAM F BURKART

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	5.684	4.743
TOTAL PROCUREMENT	2.116	2.510
TOTAL O+M	2.765	2.896
TOTAL OTHER	0.973	1.830
TOTAL ANNUAL LAB	11.538	11.979
TOTAL IN-HOUSE	7.972	8.187
TOTAL IN-HOUSE RDT+E	4.092	3.381
ANNUAL OPERATING COST	2.752	2.888

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	16	2	8	8
CIVILIAN	365	32	177	188
TOTAL	381	34	185	196

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
22	120.352	21.977	31.548	173.877	4.956	4.982

...MISSION

TO CONDUCT RESEARCH AND TO DEVELOP TEST + EVALUATE TECHNIQUES, EQUIPMENT MATERIAL + STRUCTURES BEST SUITED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF FACILITIES FOR ADVANCED BASES, AMPHIBIOUS FORCES, SEAFLOOR OPERATIONS AND THE NAVY SHORE ESTABLISHMENT.

...CURRENT IMPORTANT PROGRAMS

NAVY SHORE FACILITIES SUPPORT. NAVY SEAFLOOR INSTALLATIONS AMPHIBIOUS + ADVANCED BASE TECHNOLOGIES. NAVY SHORE ESTABLISHMENT DETERIORATION PROBLEMS. DEVELOPMENTS ASSIGNED BY SUPT OF SALVAGE VIETNAM LABORATORY ASSIST PROGRAM. CONSULTATION + TECH ASST TO FIELD ACTIVITIES DEEP OCEAN TECHNOLOGY. RDT+E FOR PROJECT SANGUINE FACILITIES. NUCLEAR PROTECTION TECHNOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FUNCTIONS-CONDUCT RESEARCH, DEVELOPMENT, TEST + EVALUATION RELATED TO DESIGN CONSTRUCTION MAINTENANCE + OPERATION OF FIXED STRUCTURES AND EQUIP ON THE SEAFLOOR. CONDUCT RDT+E ON FACILIT SYS + MECHANICAL + ELECTRICAL SYS RELATED TO DESIGN, CONSTRUCTION + MAINTENANCE OF SHORE ESTABLISHMENTS IN ACCORDANCE WITH LAB MISSION. MAJOR FACILITIES-DEEP OCEAN SIMULATION FACILITY WITH 72-INCH INSIDE DIAMETER 10-FT DEEP PRESSURE VESSEL SUSTAINING PRESSURES UP TO 5500 PST DIVING LOCKER + EQUIP FOR TEN DIVERS SHALLOW WATER TEST RANGE MATERIAL SCIENCE SOLID STATE, METALLURGICAL, PHOTOFASTIC SNOW + ICE LABS SIMULATED BLAST FACILITY PHOTOGRAPHIC FACILITY, LORAC B POSITIONING SYS CDC-8090 COMPUTER/TERMINAL WITH A HIGH SPEED CARD READER + LINE PRINTER DIGITAL MAG TAPE + PAPER TAPE T/O, ANALOG TAPE, ADC + DAC CONVERSION + A PEN PLOTTER + TIE WITH CDC-6600/-6400.

INSTALLATION NAVAL WEAPONS EVALUATION FACILITY, ALBUQUERQUE, N.MEX.

M W STRONG, CAPT USN C O F.X. BUSHNER, TECHNICAL DIRECTOR OF PROJECTS.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.432	1.863
TOTAL PROCUREMENT	0.240	0.286
TOTAL O+M	0.565	0.782
TOTAL OTHER	1.844	2.028
TOTAL ANNUAL LAB	4.081	4.159
TOTAL IN-HOUSE	4.053	4.129
TOTAL IN-HOUSE RDT+E	1.484	1.833
ANNUAL OPERATING COST	0.366	0.358

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	236	0	64	172
CIVILIAN	92	1	36	56
TOTAL	328	1	100	228

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	17.942	17.942	91.110	127.002	1.788	0.374

...MISSION

PLAN-COORD NAVY NUCLEAR SAFETY PROG.N.CONDUCT NUCLEAR SYST SAFETY STUD-IES.REVIEWS ON US.+ FORGN SYSTEMS.PUBLISH NEW-REVISED NUCLR + NON-NUCLR CK LISTS.VERIFY ASSOC LOADING MAN.DETERMINE MLTY CHAR + STOCKPILE ENVIR FOR NEW WPNS.SUPP BD INSP + SURV NUCLEAR WPN TRIALS + SHIP ACCEPT.

...CURRENT IMPORTANT PROGRAMS

COORDINATED NAVY NUCLEAR SAFETY PROGRAM AND DISSEMINATED SAFETY INFO. COMPLETED VARIOUS SHIP AMPH SUB AIRCRAFT NUCLEAR SYSTEMS SAFETY STUDIES. PROVIDED NUCLEAR WEAPONS ACCEPTANCE VULNERABILITY EMERG DESTRUCT DATA. PUBLISHED NUC NONNUC WEAPONS-AC CHECKLISTS VERIFIED LOADING MANUALS. COMPLETED A7E NUCLEAR WEAPONS TRIALS FOR BOARD OF INSPECTION AND SURVEY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROVIDE DESIGN CRITERIA MILITARY CHARACTERISTICS STOCKPILE-TO-TARGET DATA FOR CNO SPECIFIC OPERATIONAL REQUIREMENTS ON NEW NUC SYSTEMS.PLAN IMPROVED METHODS ASSURING EFFECTIVE NAVY NUCLEAR SAFETY PROGRAM.PLAN CONDUCT SAFETY STUDIES-REVIEWS ON NAVY SYSTEMS.SUPPORT BOARD OF INSPECT ION AND SURVEY.CONDUCT VULNERABILITY ANALYSIS OF NAVY A/C TO NUC EFFECTS AND DEVELOP NEW METHODS FOR EMERG DEST OF WPNS.ADVANCE STATE-OF-ART IN NUC NONNUC CHECKLISTS DEVELOPMENT MANUAL VERIFICATION RELIABILITY CARDS. PERFORM TESTS EVALUATIONS AND PROVIDE TECH SUPP FOR NUC-NONNUC WPN SYST. CONDUCT NUC SYSTEMS SAFETY STUDIES-REVIEWS.PLAN-COORDINATE NAVY NUC SAF ETY PROGRAM.CONDUCT NUC SYSTEMS TRIALS FOR BOARD INSPECTION AND SURVEY.

INSTALLATION NAVAL MEDICAL RESEARCH UNIT NO.2, TAIPEI, TAIWAN

CAPT R H WATTEN MC USN CH SCIENTIST R Q BLACKWELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.325	1.168
TOTAL PROCUREMENT	0.000	2.000
TOTAL U+M	0.000	2.000
TOTAL OTHER	0.500	2.600
TOTAL ANNUAL LAB	1.905	1.768
TOTAL IN-HOUSE	1.905	1.768
TOTAL IN-HOUSE RDT+E	1.325	1.168
ANNUAL OPERATING COST	0.350	0.315

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	36	11	16		20
CIVILIAN	12	2	3		7
TOTAL	46	13	19		27

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2	32.700	38.674	17.026	89.280	0.000	0.730

...MISSION

CONDUCT BASIC RESEARCH IN BIOMED SCIENCE PROVIDE DATA ON DISEASES AND MED PROBLEMS OF MIL SIGNIFICANCE RECOMMEND CONTROL MEASURES AND PROVIDE TRAINING IN R&D TECHNIQUE.

...CURRENT IMPORTANT PROGRAMS

SURVEILLANCE OF INFLUENZA IN FAR EAST
STUDIES OF FEVERS OF UNKNOWN ORIGIN.
EPIDEMIOLOGY PATH AND TREATMENT OF PHILIPPINE CAPILLARIASIS
STUDY OF DISEASE OF MIL IMPORTANCE IN INDONESIA
NUTRITION METABOLIC AND BIOCHEM STUDIES OF FAR EAST ETHNIC

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CLINICAL STUDY OF DIAG AND TREATMENT OF TROPICAL DISEASE AND EPIDEMIOLOGICAL STUDY OF INFECTIOUS DISEASE. COMPLETE RADIOISOTOPE EQUIP COMPUTER CAPABILITY IN CLINICAL INVESTIGATION MICROBIOLOGY MED PHYSICS MED ECOLOGY BIOCHEM PATH ANIMAL FACILITY.

INSTALLATION NAVAL AEROSPACE RECOVERY FACILITY, EL CENTRO, CALIF.

GO CAPT FRED P CLARK JR USN TECH DIRECTOR HOWARD C FISH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	3.829	2.750
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.655	1.600
TOTAL ANNUAL LAB	4.604	4.350
TOTAL IN-HOUSE	4.659	4.325
TOTAL IN-HOUSE RDT+E	3.004	2.725
ANNUAL OPERATING COST	0.626	0.625

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	171	1	16	155
CIVILIAN	109	0	21	88
TOTAL	280	1	37	243

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
101290	33.000	10.000	263.000	306.000	8.598	2.494

...MISSION

DEVELOP TEST EVALUATE PARACHUTES AND RELATED SYSTEMS HUMAN ESCAPE METHODS AND SYSTEMS RETARDATION AND RECOVERY SYSTEMS RESCUE SURVIVAL AND PERSONAL SAFETY EQUIPMENT SYSTEMS FOR RETARDATION AND RECOVERY OF ORDNANCE, AIRCRAFT, MISSILES AND CAPSULE ASSEMBLIES AND LOGISTIC AERIAL DELIVERY.

...CURRENT IMPORTANT PROGRAMS

DECELERATION PARACHUTE FOR CLASSIFIED AERIAL ORDNANCE WEAPON
 FLIGHT PERFORMANCE TEST F-14 AND S3A ROCKET EJECTION SEAT SYSTEMS
 FLEET SUPPORT PARACHUTE MAINTENANCE PUBLICATIONS
 SUPPORT MCDEC SPIE SYSTEM QUAL AID PROTOTYPE PRODUCTION.
 CONDUCT EVAC AND TRAINING DEFINITION MARS IN FLIGHT DRONE RECOV SYSTEM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LEAD LAB ROTE PERSONNEL RECOVERY AND RETARDATION SYSTEMS.
 DIRECT FLEET SUPPORT INCL IN-SERVICE ENGRG RE UR S UN ASSIGNED EQUIPMTS.
 PROVIDE TECH ASST AND LAND AND WATER TEST RANGE SUPPORT NOL WHITE OAK.
 PROVIDE INSTRUMENTED RANGES AND FLIGHT TEST SUPPORT NAVAIR CONTRACTORS.
 PROVIDE PHOTO INDUST SHOPS MAT LAB.SUPPORT 6511TH PER DODJPTF DIRECTIVE.
 ON-SITE QUAL ASSURANCE SUPPORT NASA PARAWING PROJECTS.
 PROVIDE TECH ASST NMC RE DEV + QUAL BIOMED PHYSIOLOGICAL INSTRUMENTATION.
 SUPPORT NAVAIRDEVCON RE ESCAPE SYSTEMS AND SEARCH RESCUE AND SURVIVAL
 EQUIPMENT DEV SYSTEM INTEGRATION AND FLIGHT TEST.
 DTE RELATED PARACHUTE GROUND SUPPORT EQUIP AND INSTALLATIONS.
 EFFECT PARACHUTE/COMPONENTS STANDARDIZATION OF SPECS DRAWINGS AND PUBS
 AS CFA DIRECT AND FUND RELATED PFA EFFORTS AS REQUIRED.

INSTALLATION NAVY WEATHER RESEARCH FACILITY, NORFOLK, VA.

CAPT W.L. SPERVELL, JR, USN, CO MR. H. WOBUS, TECH ASST DR. F. KINDLE, RSCH DIR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.308	1.146
TOTAL PROCUREMENT	0.058	0.030
TOTAL O+M	4.324	4.236
TOTAL OTHER	0.195	0.140
TOTAL ANNUAL LAB	1.885	1.552
TOTAL IN-HOUSE	1.063	1.237
TOTAL IN-HOUSE RDT+E	0.868	0.861
ANNUAL OPERATING COST	0.050	0.024

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	14	2	8	6
CIVILIAN	58	2	29	29
TOTAL	72	4	37	35

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	11.886	1.421	4.351	17.638	0.772	0.422

...MISSION

QUANTIFY WEATHER EFFECTS ON CARRIER, AIRSTRIKE, ASW, AAW, VERTREP + PHIB OPS
DESIGN FOR DISPERSAL OPS, + WARM-CLOUD + ICE-PHASE SEEDING EXPERIMENTS.
FURTHER IMPROVEMENTS IN SEASIA WEATHER + TROPICAL CYCLONE FORECASTING.
IMPROVED SURFACE WIND FORECASTS FOR NUMERICAL OCEAN-WAVE PREDICTION.

...CURRENT IMPORTANT PROGRAMS

DETERMINED CRITICAL WEATHER CHARACTERISTICS OF CONTEMPORARY UNREP OPS.
COMPUTER SIMULATION OF FCG/CLOUD + PRECIP MICROPHYSICAL PROCESSES.
IMPROVED SEASIA WINTER WEATHER + TYPHOON MOVEMENT PREDICTION TECHNIQUES.
TROPICAL DYNAMIC WAVE MODEL + COMPUTER PLOTTING OF ATMOS CROSS SECTIONS.
IMPROVED WEATHER SATELLITE PHOTO-INTERPRETATION + PRESENTATION METHODS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EXPLICIT VIDEO/VIDEO SYSTEM TO IMPROVE WEATHER-DATA DISPLAY + PRESENTATION.
QUANTIFY WEATHER EFFECTS ON ALL USN OPS, CONSULT ON NEW WEAPONS SYSTEMS.
DESIGN + PREPARE RELATED 10-YR USN ATMOS RSCH PLAN. EXTEND WARM-CLOUD/ICE
PHASE PRECIP MODELS/EXPERIMENTS TO MESOSCALE + OPTIMIZE FOR DISPERSAL.
DEVELOP MODELS/TECHNIQUES TO APPLY DYNAMIC PREDICTION ONLY FOR MARITIME
TROPICAL WEATHER FORECASTS. DEVELOP PROTOTYPE DATA DISPLAY/RETRIEVAL
/COMPUTER SYSTEM TO INTERFACE IN OPNL ENVIRONMENT WITH 1971 SATELLITE +
NUMERICAL PREDICTION PRODUCTS. WEATHER RSCH ALL STRATEGIC TROPICAL AREAS.
TRANSLATE NEW DEVELOPMENTS IN METRO-OCEANO ANALYSIS + FORECASTING INTO
SIMPLIFIED TECHNIQUES FOR USE BY FLEET METEOROLOGISTS DEVISE TECHNIQUES
TO SOLVE ANALYSIS/FORECASTING PROBLEMS ARISING FROM NEW OPNL WEAPONS.
EVALUATE ANALYSIS/FORECASTING METHODS DERIVED BY LOCAL NAVWEATHERV UNITS

INSTALLATION NAVAL AIR TEST FACILITY, LAKEHURST, N. J.

CAPT CHARLES L AXELL / NICHOLAS IVANOVIC

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.236	0.723
TOTAL PROCUREMENT	1.309	2.463
TOTAL O+M	3.945	3.636
TOTAL OTHER	3.676	3.125
TOTAL ANNUAL LAB	11.166	7.947
TOTAL IN-HOUSE	11.166	7.947
TOTAL IN-HOUSE RDT+E	2.236	0.723
ANNUAL OPERATING COST	0.530	0.550

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF	NON- PROF
MILITARY	155	0	9	146
CIVILIAN	429	0	75	354
TOTAL	584	0	84	500

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2500	59.895	30.498	0.000	90.393	40.181	6.912

...MISSION

TO CONDUCT TESTS AND EVAL OF LAUNCHING RECOVERY AND VISUAL LANDING AIDS SYSTEMS AND RELATED EQUIPMENT. PROVIDE TEST SITES FACILITIES FOR DEV TEST OF SI EQUIPMENT. CONDUCT R AND D OF EQUIP AND INSTR USED IN TEST AND EVALUATION OF SI EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

EVAL OF INTEGRATED CATAPULT CONTROL STATION
 CVAN-68 DEV AND EVAL PROGRAM
 CVAN-68 JET BLAST DEFLECTOR DEV AND EVAL PROGRAM
 CVAN-68 FLUSH DECK NOSE GEAR LAUNCH DEV AND EVAL PROGRAM
 MK 7-1 ARRESTING GEAR DECK-SHEAVE COVER INSERT EVAL PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CARRIER CONFIGS DUPLICATED AND SERV OPS SIMULATED WITH NAVAL ACFT.
 CAT DEV FAC SHIPBOARD USED TO DEV EVAL NEW ACFT-CARRIER LAUNCH SYSTEMS.
 CAT DEV FAC SHOREBASED EXPEDITIONARY CAT FOR DEV MARINE CORPS.
 SATS CONCEPT AND REQUIRED ACFT LAUNCHING ACCESSORIES.
 ARRESTING GEAR DEV FAC SHIPBOARD CONFIGURED TO SIMULATE STANDARD SHIPBOARD ARRESTING GEAR INSTAL MK5 MOD 3 AND MK7 MOD 1 2 AND 3.
 TEST TRACK FAC 5 TO DEV AND/OR EVAL SHOREBASED AND SHIPBRD ARRS SYS.
 STEAM PLANT FAC SUPPLIES HIGH-PRESSURE STEAM TO SHIPBOARD CAT SITES.
 HYDRAULIC TEST FAC CONSISTS OF TWO HYDRAULIC TEST BENCHES.
 DIGITAL AND ANALOG COMPUTATIONAL FAC PROVIDES FOR SCIENTIFIC PROBLEM SOLUTION. MISC AND SCIENTIFIC DATA REDUCTION OF ACQUIRED DATA.
 INSTR MAINT/CALIB FAC MOTION/STILL PHOTO CAP AND FILM DEV LAB.

INSTALLATION: NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT, SAN DIEGO, CALIF.
CAPT R J ARTHUR MC USN SCIEN DIR DR W WILKINS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.836	0.904
TOTAL PROCUREMENT	0.000	0.000
TOTAL U+M	0.000	0.000
TOTAL OTHER	0.130	0.160
TOTAL ANNUAL LAB	0.966	1.064
TOTAL IN-HOUSE	0.966	1.064
TOTAL IN-HOUSE RDT+E	0.836	0.904
ANNUAL OPERATING COST	0.143	0.150

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	9	8	8	1
CIVILIAN	52	7	18	34
TOTAL	61	15	26	35

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	11.177	4.500	0.000	15.677	0.000	0.218

...MISSION
CONDUCT RESEARCH IN THE AREA OF NEUROPSYCHIATRY AS IT APPLIES TO THE
NAVAL SERVICE.

...CURRENT IMPORTANT PROGRAMS
PSYCHO-PHYSIO EFFECTS OF FATIGUE SLEEP LOSS AND ABNORMAL WORK SITUATIONS.
PREDICT EFFECTIVENESS OF NAV AND MARCOR ENLISTED.
ASSESS AND MANAGE INEFFECTIVENESS RELATED TO PSYCH DIFFICULTIES.
LEVELS OF VIGILANCE AND STATES OF CONSCIOUSNESS.
PREDICT AND MONITOR PERFORMANCE WITH BIOCHEM MEASURES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ANALYSIS OF UNDERWATER PSYCHOPHYSIO PROGRAMS AND TASKS.
COMPLETE EEG COMBINED USE FOR SINGLE SEIZURE STUDY AND SLEEP DEPRIVATION.
ON-LINE EEG RECORDING CAPABILITIES.

INSTALLATION NAVAL MISSILE CENTER, POINT MUGO, CALIF.

CAPT. LEWIS A HOPKINS CO DONALD F SULLIVAN TECH DIR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	25.614	29.297
TOTAL PROCUREMENT	11.972	9.526
TOTAL O+M	10.271	7.915
TOTAL OTHER	5.397	5.787
TOTAL ANNUAL LAB	53.254	52.525
TOTAL IN-HOUSE	41.296	41.424
TOTAL IN-HOUSE RDT+E	19.306	21.987
ANNUAL OPERATING COST	0.952	1.205

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	727	3	52		675
CIVILIAN	1580	7	472		1108
TOTAL	2307	12	524		1783

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
3	101.925	150.569	633.941	886.435	16.412	38.240

...MISSION

TO PERFORM TEST, EVALUATION, DEVELOPMENT SUPPORT AND EXERCISE ENGINEERING COGNIZANCE AS ASSIGNED OF NAVAL WEAPONS, WEAPON SYSTEMS AND RELATED DEVICES.

...CURRENT IMPORTANT PROGRAMS

F-14A/PHOENIX DEVELOPMENT TESTING
 AIRBORNE ELECTRONIC COUNTERMEASURES R + D
 ENGINEERING COGNIZANCE OF AIR-LAUNCHED WEAPONS
 T AND E OF AERIAL AND SURFACE TARGETS
 AIR-TO-AIR, AIR-TO-SURFACE MISSILE PRODUCTION TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PERFORM TESTS AND CONDUCT TECH EVALUATIONS OF NAVAL AIRBORNE WEAPON SYS, GUIDED MISSILE SUBSYSTEMS AND RELATED SUPPORT EQUIP. PERFORM BIS TRIALS FOR INTEGRATED AIRBORNE WEAPON SYS, PERFORM PROD MONITORING TESTS OF NEW GUIDED MISSILE LOTS. PROVIDE ENG COGNIZANCE AND FIELD ENG SERVICES ON ASSIGNED OPERATIONAL AIRBORNE WEAPONS AND TARGETS SYSTEMS. PROVIDE ENGINEERING MANAGEMENT AND SUPPORT FOR EW EQUIP DURING DEV AND DEPLOYMENT. PERFORM DEV, T + E OF AIRBORNE AND SURFACE TARGET SYSTEMS. MAJOR FAC-- TEST OPERATIONS FAC LABORATORY FAC INCL ENVIRONMENTAL FAC RADAR REFLECTIVITY FAC ROCKET ENGINE TEST FAC INTEGRATED SYSTEMS SIMULATION FAC TARGET FAC PHOTOGRAPHICS FAC INFRARED LASER AND OPTICS LABS.

INSTALLATION NAVAL PERSONNEL RESEARCH ACTIVITY, SAN DIEGO, CALIF.

CDR KARL EL KUEHNER USN CG / DR EDMUND E DUDEK TECHNICAL DIRECTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.862	3.459
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.047	0.052
TOTAL OTHER	0.227	0.272
TOTAL ANNUAL LAB	3.136	3.783
TOTAL IN-HOUSE	3.136	3.783
TOTAL IN-HOUSE RDT+E	2.862	3.459
ANNUAL OPERATING COST	0.650	0.742

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRGF	NON- PROF
MILITARY	35	0	35	0
CIVILIAN	195	30	102	93
TOTAL	230	30	137	93

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1	47.300	4.900	0.000	52.200	0.210	0.254

...MISSION

PLANS AND CONDUCTS RESEARCH AND DEVELOPMENT IN PERSONNEL OPERATIONS AND BEHAVIORAL SCIENCES TO DEVELOP NEW CONCEPTS AND IMPROVED METHODS FOR ACQUIRING, CLASSIFYING, TRAINING, DISTRIBUTING, AND RETAINING PERSONNEL AND FOR MAXIMIZING THE UTILIZATION OF NAVY MANPOWER RESOURCES,

...CURRENT IMPORTANT PROGRAMS

1/TRAINING MARGINAL MEN/2/LOFAR ANALYSIS/3/AUTOMATED ENLISTED PERFORMANCE EVALUATION/4/TACTICAL DATA SYSTEMS DISPLAYS/5/ENLISTED CHANGE DATA BANK/6/BUDGET COST MANAGEMENT PROGRAM,

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTING RESEARCH AND DEVELOPMENT-1/DESIGN OF TRAINING/2/FEED BACK IN ELECTRONICS TRAINING/3/COMPUTER ASSISTED INSTRUCTION/4/WELDER TRAINING 5/IMPROVE ENLISTED CLASSIFICATION/6/TESTS FOR ON-JOB TRAINING POTENTIAL 7/OCCUPATIONAL INFORMATION FOR RECRUIT TRAINING/8/VALIDATE TACTICAL DATA SYSTEM DISPLAY TECHNIQUES/9/FAULT ISOLATION TECHNIQUES/10/FLEET IMPACT OF AUTOMATED COMMUNICATIONS/11/PROTOTYPE ADVANCEMENT STRENGTH AND TRAINING PLANS SYSTEM/12/ROTATION FLOW MODEL/13/WORK REQUIREMENTS FOR AIRMEN/14/AVIATION OCCUPATIONAL DATA BANK.

INSTALLATION NAVAL MEDICAL RESEARCH INSTITUTE, NATIONAL NAVAL MEDICAL CENTER,
BETHESDA, MD.

CAPT T RICHTER MC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	4.555	4.767
TOTAL PROCUREMENT	0.000	2.202
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.953	1.981
TOTAL ANNUAL LAB	6.508	6.748
TOTAL IN-HOUSE	6.508	6.748
TOTAL IN-HOUSE RDT+E	4.555	4.767
ANNUAL OPERATING COST	0.876	0.810

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	172	36	81	91
CIVILIAN	245	43	119	126
TOTAL	417	79	200	217

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
4	166.264	12.943	18.828	198.037	3.775	3.235

...MISSION

TO CONDUCT BASIC AND APPLIED RESEARCH AND DEVELOPMENT CONCERNED WITH HEALTH, SAFETY AND EFFICIENCY OF NAVAL PERSONNEL.

...CURRENT IMPORTANT PROGRAMS

STUDY TISSUE FUNCT INFECT CHEMOTHERAPY BEHAVIORAL DECREMENT IN HYPERBAR.
STUDY DECOMPRESSION SICKNESS AND GAS BUBBLE FORMATION IN TISSUES.
TISSUE TYPING AND TRANSPLANTATION IN RESTORATIVE SURGERY.
STUDY HEAT AND COLD STRESSES IN HYPERBARIC AND HIGH-HUMIDITY ENVIRONMENT.
PHYSIOLOGICAL EFFECTS OF MICROWAVE RADIATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYPERBARIC MICROBIOLOGY PHYSIOLOGY PSYCHOLOGY AND PHARMACOLOGY STRESS
PHYSIOLOGY. SELECT AND EVALUATE MED PERS TRNG PROGRAMS. TISSUE BANK AND
ORGAN TRANSPLANT. SHOCK AND RESUSCITATION STUDIES. MICROBIOL IN INFECT-
IOUS STATES. ORAL SURG AND PATH HUMAN TREADMILL. LIQUID NITROGEN GENE-
RATOR. ELECTRON MICROSCOPE. HYPERBARIC CHAMBER COMPLEX. TISSUE FREEZE
DRYING AND STORAGE FACILITY. VIVARIUM.

INSTALLATION NAVAL BLOOD RESEARCH LABORATORY, NAVAL HOSPITAL, CHELSEA, MASS.

CDR C R VALERT MC USNR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.272	0.262
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.135	0.164
TOTAL ANNUAL LAB	0.407	0.426
TOTAL IN-HOUSE	0.407	0.426
TOTAL IN-HOUSE RDT+E	0.272	0.262
ANNUAL OPERATING COST	0.053	0.045

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRGF	NON- PROF
MILITARY	9	3	4	5
CIVILIAN	13	1	2	11
TOTAL	22	4	6	16

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1	6.263	0.161	1.000	7.424	0.115	0.421

...MISSION

CONDUCT REARCH AND DEV METHODS FOR LONG-TERM PRESERVATION OF BLOOD AND BLOOD PRODUCTS AND EVAL OF USEFULNESS IN OPERATIONAL AREAS AND HOSPITALS.

...CURRENT IMPORTANT PRGGRAMS

EVAL OF IMPROVED METHODS FOR PRESERVING RED CELLS.
 EVAL OF IMPROVED METHODS FOR PRESERVING WHITE BLOOD CELLS.
 EVAL OF IMPROVED METHODS FOR COMPONENT THERAPY.
 EVAL OF METHODS FOR COLLECTION AND PRESERVATION OF PLATELETS.
 DEV IMPROVED PROTOCOL FOR CLINICAL EVALUATION OF FROZEN BLOOD.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PERFORM RDT&E IN METHODS OF PRESERVING BLOOD AND BLOOD PRODUCTS.
 LIQUID AND FREEZE PRESERVATION EQUIPMENT FOR RED BLOOD CELLS PLATELETS
 WHITE BLOOD CELLS AND PLASMA FRACTIONS. EQUIPMENT TO EVAL VIABILITY AND
 FUNCTION OF BLOOD AND BLOOD PRODUCTS.

INSTALLATION NAVY SPACE SYSTEMS ACTIVITY, LOS ANGELES, CALIF.

CAPTAIN D G FAULKNER USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	7.591	6.805
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	7.591	6.805
TOTAL IN-HOUSE	0.549	0.646
TOTAL IN-HOUSE RDT+E	0.549	0.646
ANNUAL OPERATING COST	0.190	0.220

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	28	1	9	19
CIVILIAN	58	1	19	39
TOTAL	86	2	28	58

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	6.000	0.000	6.000	0.002	0.025

...MISSION
MANAGEMENT OF SYSTEMS DEVELOPMENT OF SATELLITES AND RELATED EQUIPMENT FOR SUPPORT OF THE NAVY,

...CURRENT IMPORTANT PROGRAMS
PROJECT 749
JOINT SERVICE SATELLITE SYSTEM
NAVIGATION SATELLITE INVESTIGATIONS
SATELLITE APPLICATION FOR SEARCH AND RESCUE
SPACE EXPERIMENTS SUPPORT PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FIELD ACTIVITY OF NAVAL AIR SYSTEMS COMMAND
PROVIDE ENGINEERING COMPETENCE AND MANAGEMENT OF ASSIGNED SPACE SYSTEMS.
PROVIDE AN INTERFACE TO NAVAL ACTIVITIES RESPONSIBLE FOR TECHNICAL DEVELOPMENT INVOLVING SPACE SYSTEMS.

PROVIDE GUIDANCE TO NAVAIR ON SCOPE AND CONTENT OF ITS ADVANCED STUDY RESEARCH AND EXPLORATORY PROGRAMS AND FUTURE APPLICATIONS THEREOF.

INSTALLATION NAVAL DENTAL RESEARCH INSTITUTE, NAVAL TRAINING CENTER,
GREAT LAKES, ILL.
CAPT KIRK C HUERMAN DC USN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.313	0.366
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.015	0.012
TOTAL OTHER	0.230	0.250
TOTAL ANNUAL LAB	0.558	0.628
TOTAL IN-HOUSE	0.558	0.628
TOTAL IN-HOUSE RDT+E	0.313	0.366
ANNUAL OPERATING COST	0.041	0.035

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	17	7	8	9
CIVILIAN	10	2	6	4
TOTAL	27	9	14	13

ACRES	SPACE AND PROPERTY- SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	6.997	0.897	8.664	16.558	0.002	0.275

...MISSION

CONDUCT RESEARCH IN DENTAL PROBLEMS OF ORAL HEALTH IN NAVAL AND MARCORP PERSONNEL AND DELIVERY OF DENTAL CARE.

...CURRENT IMPORTANT PROGRAMS

ORAL HEALTH OF NAVAL PERSONNEL
CHEM AND ENZYMOLOGY OF CARIES IN CARIES-IMMUNE RECRUITS
BACTERIOLOGY OF SALIVA AND PLAQUE OF CARIES-IMMUNE RECRUITS.
SELF SUPPORTED MOBILE DENTAL VAN FOR FIELD AND GARRISON
BIOCHEM STUDIES OF ORAL FLUID

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ASSESS DENTAL HEALTH STATUS OF RECRUITS. IMPROVE DISEASE PREVENTION AND CARE PROCEDURES. INCREASE QUALITY AND QUANTITY OF CARE IN COMBAT TROOPS INCLUDING FACIAL INJURIES. DEFINE ORAL DISEASE ETIOLOGY AND DEVELOPMENT OF SAFE THERAPEUTIC METHODS. COMPUTERIZE LOCAL DENTAL MANPOWER AND RESOURCES MANAGEMENT. EXPLORE USE OF RAPID DIAGNOSES FROM LUMINESCENCE OF BIOLOGICAL MATERIAL. AMINO ACID ANALYZER. SPECTROPHOTOFUOROMETER. 4K MEMORY CORE COMPUTER. PROGRAMMED CLIMATE ROOM. MOBILE DENTAL TREATMENT UNIT. ELECTRON MICROSCOPY AND STEREOSCANNING BACTERIAL TAXONOMY SMALL MOLECULE CHARACTERIZATION. VACCINE PRODUCTION AND TESTING. PATIENT MOTIVATION BEHAVIOR. DENTAL EQUIP DESIGN AND FABRICATION.

INSTALLATION ATLANTIC UNDERSEA TEST AND EVALUATION CENTER, WEST PALM BEACH, FLA.

CD CAPT W P RUTHELM USN TECHNICAL DIRECTOR MR D J OMEARA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	12.025	12.825
TOTAL PROCUREMENT	0.778	2.588
TOTAL O&M	0.320	2.262
TOTAL OTHER	0.685	0.429
TOTAL ANNUAL LAB	13.468	13.922
TOTAL IN-HOUSE	3.213	2.629
TOTAL IN-HOUSE RDT+E	2.328	2.232
ANNUAL OPERATING COST	0.952	0.952

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NOV- PROF
MILITARY	55	2	6	49
CIVILIAN	88	2	31	57
TOTAL	143	4	37	106

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1154	73.580	6.536	206.117	286.233	21.245	76.738

...MISSION
PROVIDE A DEEP-WATER TEST AND EVALUATION FACILITY FOR MAKING UNDERWATER ACOUSTIC MEASUREMENTS, TESTING SONARS, AND PROVIDING ACCURATE UNDERWATER SURFACE AND AIR TRACKING DATA ON SHIPS AND WEAPONS IN SUPPORT OF THE U S NAVY'S ASW AND UNDERSEA RESEARCH AND DEVELOPMENT PROGRAMS.

...CURRENT IMPORTANT PROGRAMS
MK 48 MODS 1+2 TORPEDO TECH EVAL TEST.
SURFACE SHIP WEAPONS SYSTEM ACCEPTANCE TRIALS (HSAT)
P3C-MOD 7 AIRCRAFT AVIONICS SYSTEM CALIBRATION TESTS
AN/BQS-13 SUBMARINE SONAR SYSTEM VALIDATION TESTS
AIRBORNE OPTICAL RANGING + DETECTION SYSTEM DEVELOPMENT TESTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
WEAPONS RANGE--SHIP, AIRCRAFT AND WEAPON TRACKING THREE DIMENSIONAL- IN-AIR + IN-WATER REAL TIME PLOTS + DISPLAYS AND POST-TEST PROCESSED DATA. THREE IN-WATER TRACKING ARRAYS, TWO TRACKING RADARS, FIVE THEODOLITES, A COMMAND DESTRUCT SYSTEM AND A TELESEE SYSTEM LOCATED AT FIVE SITES ON ANDROS ISLAND, BAHAMAS, LINKED BY MICROWAVE TO COMPUTERS, DISPLAYS AND A COMMAND CONTROL SYSTEM AT ANDROS MAIN BASE. SONAR RANGE INCREMENT ONE-SENSOR ACCURACY CHECK FORACS V RANGE IN TOTO INSTRUMENTED WITH ACTIVE AND PASSIVE TARGETS AND PRECISION TRACKING SYSTEM. COMPUTER AND COMMAND CONTROL SYSTEM AT ANDROS MAIN BASE PROVIDE DATA TO DETERMINE ERROR IN SURVEILLANCE, NAVIGATION, AND FIRE CONTROL SYSTEMS OF SURFACE SHIPS AND SUBMARINES. ACOUSTIC RANGE--RADIATED NOISE MEASUREMENT SHIPS/SUBMARINES. ACOUSTIC TRACKING + DATA ACQUISITION ARRAY IN TOTO, COMPUTERS MAIN BASE.

INSTALLATION: NAVY ELECTRONIC SYSTEMS TEST AND EVALUATION FACILITY,
PATUXENT RIVER, MD.
COMMANDING OFFICER- CDR R. N. WINKEL, TECHNICAL DIRECTOR- R. E. WAXMAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL R+T+E	1.598	1.581
TOTAL PROCUREMENT	0.687	2.899
TOTAL CM	2.189	2.295
TOTAL OTHER	0.284	2.333
TOTAL ANNUAL LAB	4.678	4.198
TOTAL IN-HOUSE	4.678	4.198
TOTAL IN-HOUSE R+T+E	1.598	1.581
ANNUAL OPERATING COST	3.451	2.582

PERSONNEL DATA (END OF FY 1973)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	35	2	6	29
CIVILIAN	134	2	51	43
TOTAL	169	2	57	112

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
852	22.944	2.582	14.295	39.741	0.127	0.296

...MISSION
MISSION--TO PROVIDE TECHNICAL + SUPPORT AND SERVICES ON ELECTRONIC SYS
EQUIPMENTS AND PERFORM OTHER TASKS AS ASSIGNED BY THE CDR, NAVAL ELEC
SYSTEMS COMMAND.

...CURRENT IMPORTANT PROGRAMS
IFF-AIMS TEST, EVALUATION, CERTIFICATION OF EQUIPMENTS/SYSTEMS.
ALOS TEST EVALUATION, CERTIFICATION OF SHIPS SYSTEMS
NAVIGATIONAL AIDS T+E OF SHIPBOARD, SHORE, SATELLITE COMMUNICATIONS
COMMUNICATIONS- T+E OF SHIPBOARD, SHORE SATELLITE COMMUNICATIONS
RADAR T+E OF SEARCH, PRECISION TACTICAL RADARS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MAJOR FUNCTIONS-- T+E OF ELECTRONIC EQUIPMENTS/SYSTEMS, DEVELOP SPECS
MONITOR PROCUREMENTS- SEL CONTRACT PROPOSALS, PROVIDE CONSULTATION ASSIST
WHEN REQUESTED.
MAJOR EQUIP--IFF-AIMS, ACLS, TACAN, GCA, RADAR, HF COMMUNICATIONS, SATELLITE
COMMUNICATIONS
FACILITY CAPABILITIES--COMPLETE LABORATORY OPERATIONAL, ENVIRONMENTAL TEST
EVALUATION OF ASSIGNED EQUIPMENTS, SYSTEMS, COMPLETELY EQUIPPED WITH STA
SPECIAL PURPOSE TEST EQUIPMENT.

INSTALLATION NAVAL UNDERSEA R+D CENTER, SAN DIEGO, CALIF.

COMMANDER - CAPT C. B. BISHOP USN TECHNICAL DIRECTOR - DR. WM J MCLEAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	34.116	36.902
TOTAL PROCUREMENT	14.380	14.600
TOTAL O+M	7.591	7.500
TOTAL OTHER	4.515	10.701
TOTAL ANNUAL LAB	60.602	69.703
TOTAL IN-HOUSE	39.247	48.118
TOTAL IN-HOUSE RDT+E	24.030	20.732
ANNUAL OPERATING COST	13.761	19.860

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	371	3	27	344
CIVILIAN	1462	65	615	847
TOTAL	1833	68	642	1191

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
37619	316.890	33.457	664.722	1015.069	36.703	42.274

...MISSION

TO CONDUCT A PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST, EVALUATION, SYSTEMS INTEGRATION, AND FLEET ENGINEERING SUPPORT IN UNDER-SEA WARFARE AND TECHNOLOGY,

...CURRENT IMPORTANT PROGRAMS

ADVANCED SONAR TECHNIQUES DEVEL + FLEET SONAR SYSTEMS IMPROVEMENT
OCEAN SCIENCES, INCL MARINE BIOSCIENCES, WITH USN APPLICATION
TORPEDO DEVEL + IN-SERVICE SUPPORT + MODERNIZATION PROGRAM
DEEP SUBMERGENCE RECOVERY + WORK SYSTEMS DEVEL + TEST
FLEET SUPPORT INCL ASW ANALYSIS + EFFECTIVENESS EVAL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FUNCTIONS, FACILITIES, CAPABILITIES--ORIGINATE + DEVELOP NEW CONCEPTS IN UNDERSEA WARFARE + OCEAN TECHNOLOGY. CONDUCT RESEARCH RELATED TO USN PROBLEMS PECULIAR TO PACIFIC AREAS. DEVELOP INTEGRATED USN SYSTEMS, DEEP OCEAN ENGR EQUIP + TECHNIQUES, + FACILITATE THEIR PRODUCTION + FLEET USE. ASSESS ASW FORCES, PROGRAMS, TACTICS. RDT+E LABS SDIEGO, PASADENA, HAWAII SEA TEST + ENGR RANGES SAN CLEMENTE ISLAND, MORRIS DAM, BREACH ACOUSTIC PROPAGATION RANGE OFF CAL COAST MARINE BIOSCIENCE FAC, PT MUGU CALIBRATION STA, LAKE PEND OREILLE ARCTIC FIELD STA, ALASKA RESEARCH SHIPS + CRAFT INCL USNS S P LEE T-AGS-31 ARCTIC SUBMARINE LAB+ POLAR ICE SIMULATOR TRANSDUCER EVAL CENTER ANECHOIC AT ALL FREQUENCIES ASW COMPUTER SIMULATION CENTER VARIABLE ANGLE LAUNCHER, + OTHERS.

INSTALLMENT NAVAL PERSONNEL RESEARCH AND DEVELOPMENT LABORATORY,
WASHINGTON, D. C.
COMMANDING OFFICER CDR R E MCCOY TECHNICAL DIRECTOR F M RAMKAS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+E	3.156	3.162
TOTAL PROCUREMENT	0.000	0.000
TOTAL CFM	3.841	2.664
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	3.997	3.766
TOTAL IN-HOUSE	3.997	3.766
TOTAL IN-HOUSE ROT+E	3.156	3.162
ANNUAL OPERATING COST	0.525	0.596

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	24	1	14	10
CIVILIAN	231	6	135	96
TOTAL	255	7	149	106

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF LAB ADMIN OTHER TOTAL SQUARE FEET)				REAL PROP	EQUIP
2	22.156	2.703	1.420	26.279	0.652	2.389

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST EVALUATION BEHAVIORAL AND SOCIAL
SCIENCES AND RELATED FIELDS DIRECTED TOWARD NEW AND IMPROVED PERSONNEL
AND MANPOWER SYSTEMS TECHNIQUES AND OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

GUIDED MISSILE DESTROYER SIMULATION MODEL
SHORE MANPOWER ALLOCATION AND PRODUCTIVITY MODEL
OCCUPATIONAL DATA DEVELOPMENT
NAVY PREP SCHOOL SELECTION STRATEGY
PERSONNEL REACTIONS INCENTIVES NAVAL CONDITIONS EXPERIENCES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCCUPATIONAL ANALYSIS PERSONNEL RECRUITMENT PROCUREMENT SIMULATION
MODELING NAVY MANPOWER REQUIREMENTS WEAPONS SYSTEMS PERSONNEL TRAINING
REQUIREMENTS CAREER STRUCTURES ATTITUDES MOTIVATION ORGANIZATIONAL
EFFECTIVENESS MANPOWER PERSONNEL COST SYSTEMS RCA 301 COMPUTER IBM
1051 DATA LINK TERMINAL OPSCAN 100

INSTALLATION: NAVAL AEROSPACE MEDICAL RESEARCH LABORATORY, PENSACOLA, FLA.

CAPT N W ALLEBACH MC USN TECH ADV DR A GRAYBIEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	3.192	2.698
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.407	0.407
TOTAL ANNUAL LAB	3.599	3.105
TOTAL IN-HOUSE	3.599	3.105
TOTAL IN-HOUSE RDT+E	3.192	2.698
ANNUAL OPERATING COST	0.174	0.180

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	26	7	10	16
CIVILIAN	114	17	32	82
TOTAL	140	24	42	98

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
3	96.787	9.604	12.893	119.284	2.791	1.366

...MISSION

CONDUCT RESEARCH IN AVIATION AND SPACE MEDICINE, AVIATION PSYCHOLOGY AND PHYSIOLOGY. EVALUATE AEROMEDICAL EQUIPMENT. SUPPORT NAVAL AIR TRAINING IN SELECTION, INDOCTRINATION AND INSTRUCTION OF NONMEDICAL AVIATION PERSONNEL. PROVIDE CONSULTATION IN AVIATION MEDICAL MATTERS.

...CURRENT IMPORTANT PROGRAMS

PREVENTION OF DISORIENTATION AND VESTIBULAR DISTURBANCES IN FLIGHT.
AVIATION PERS PROCUREMENT AND SELECTION.
RESPONSE TO IMPACT ACCELERATION.
PHYSIO EFFECTS OF NONIONIZING RADIATION.
EVAL CARDIOVASCULAR DISEASE RISK.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT PERS PHYSICAL FITNESS PSYCHOLOGICAL ATTITUDES AND TOLERANCE TO STRESS STUDIES OF FORCE ACOUSTIC ELECTROMAG RADIATION AND ATMOSPHERIC ENVIRONS SLOW ROTATION ROOM HUMAN DISORIENT DEVICE, CORIOLIS ACCELER PLATFORM STILLE WERNER CHAIR SHIP MOTION SIMULATOR ELECTRON MICROSCOPE SUPER CONDUCTION MAGNET LAB EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS, AIRCRAFT EQUIPPED FOR INFLIGHT EEG AND ECG ANIMAL HOUSING FACILITIES WITH OR UNIVAC 418.

INSTALLATION NAVAL SUBMARINE MEDICAL RESEARCH LABORATORY,
NEW LONDON, GROTON, CONN.
CPR J BLOOM MC USN SC DIR - OR C F GELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.226	1.181
TOTAL PROCUREMENT	0.000	0.222
TOTAL O+M	0.000	0.202
TOTAL OTHER	0.570	0.354
TOTAL ANNUAL LAB	1.796	1.535
TOTAL IN-HOUSE	1.796	1.535
TOTAL IN-HOUSE RDT+E	1.226	1.181
ANNUAL OPERATING COST	0.148	0.150

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	23	7	12	11	
CIVILIAN	66	11	35	31	
TOTAL	89	18	47	42	

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
2	48.297	1.753	0.000	50.050	1.493	1.093

...MISSION
LONGITUDINAL HEALTH STUDY OF SUBMARINE AND DIVING PERS. ANTHROPOMETRIC EVAL OF SUBMARINE PERS FOR SAFETY EQUIP. RESEARCH PHYSIO EFFECTS OF INTERMIT EXPOSURE TO INCREASED CO2 AND O2.

...CURRENT IMPORTANT PROGRAMS
STUDY EFFECTS OF UNDERWATER ENVIRONMENT ON HEARING IN DIVERS.
STUDY EFFECTS OF MIXED GASES-HE AND O2-CN SPEECH IN DIVERS.
STUDY EPIDEMIOLOGIC RELATIONSHIP OF AEROSOLS IN SUBMARINES.
TEST SUBMARINE ESCAPE SUIT FOR ADAPTATION BY NAVY.
FIELD STUDIES OF UNDERWATER VISION AND COLOR VISION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
DEV SENSORY AIDS FOR UNDERWATER COMMUNICATIONS SELECTION AND RETENTION STUDY OF SUP AND DIVING PERS. DEV AND EVAL SUB AND DIVING SAFETY EQUIP. LONG-RANGE TLX STUDIES IN SUB ENVIRON. HUMAN FACTOR RELATION TO SUB WEAPON SYSTEM EFFECTIVENESS. HYPERBARIC CHAMBER AS CLINICAL TREATMENT DEV. STUDY IMPROVE SELECTION AND PERFORMANCE OF SUB PERS. EXCURSION DIVING FROM GAS-SATURATED STATE STUDY. EFFECT OF SUB SERV STRESS ON ORAL HEALTH.

INSTALLATION NAVY UNDERWATER SOUND LABORATORY, NEW LONDON, CONN.

COMMANDING OFFICER CAPT B D LIMA//TECHNICAL DIRECTOR MR H E NASH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	23.886	27.345
TOTAL PROCUREMENT	3.832	1.235
TOTAL C+M	5.675	7.949
TOTAL OTHER	1.659	1.643
TOTAL ANNUAL LAB	35.052	38.172
TOTAL IN-HOUSE	26.096	28.426
TOTAL IN-HOUSE RDT+E	17.778	22.362
ANNUAL OPERATING COST	9.513	16.021

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF	NON- PRCF
MILITARY	61	0	10	51
CIVILIAN	1306	34	586	720
TOTAL	1367	34	596	771

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
126	298.153	33.087	218.430	549.670	13.920	15.826

...MISSION

PERFORM RESEARCH/DEVELOPMENT/TEST AND EVALUATION IN SURFACE AND UNDERSEA SURVEILLANCE/SUBMARINE COMMUNICATIONS/CLASSIFICATION/OCEANOGRAPHY AND RELATED FIELDS OF SCIENCE AND ENGINEERING.

...CURRENT IMPORTANT PROGRAMS

INCREASE SSBN-SSN SONAR DETECTION/TRACKING/CLASSIFICATION CAPABILITIES.
IMPROVE BOTTOM/BOUNCE AND CONV ZONE CAPABILITIES OF SURFACE SHIP SONAR.
DEVELOPMENT AND SYSTEM ENG OF INTEGRATED SUBMARINE ANTENNA SUBSYSTEM.
RESEARCH IN PHYSICAL/CHEMICAL AND BIOLOGICAL OCEANOGRAPHY.
DEVELOPMENT OF SHIP-SHORE ACOUSTIC COMMUNICATION SYSTEM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TO PROVIDE RDT/E SUPPORT TO NAVSHIPS/NAVELEX/NAVORD/NAVOCEANO
MJR EQUIPMENT AND FACILITIES-ANALOG AND DIGITAL COMPUTERS/ENVIRONMENTAL
TEST FACILITIES/VACUUM RANGE/HOLOGRAPHY LABORATORY/TRANSDUCER MODEL LAB/
QUIET HYDRODYNAMIC FLOW FACILITY/WIND TUNNEL/UNDERWATER OPTICAL RANGE/
ACOUSTIC DATA REDUCTION FACILITY/RADIO TEST LABORATORY/ACOUSTIC TEST
TANK/TRANSDUCER MEASUREMENT AND CALIBRATION FACILITY/ANTENNA EVALUATION
FACILITY/TECHNICAL INFORMATION CENTER/OCEANOGRAPHIC AND UNDERWATER
ACOUSTIC RESEARCH FIELD ACTIVITY.

INSTALLATION

MATERIALS LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

DR A M LOVELACE-DIRECTOR AND DR S W TSAI-CHIEF SCIENTIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	38.495	36.982
TOTAL PROCUREMENT	18.000	11.000
TOTAL U+M	0.000	2.000
TOTAL OTHER	0.000	2.000
TOTAL ANNUAL LAB	56.495	47.982
TOTAL IN-HOUSE	8.539	8.885
TOTAL IN-HOUSE RDT+E	8.539	8.885
ANNUAL OPERATING COST	5.000	5.250

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NOV- PROF
MILITARY	57	9	54	3
CIVILIAN	358	38	267	41
TOTAL	415	47	321	44

ACFES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
9	212.000	22.000	38.000	272.000	6.500	9.325

...MISSION

PLAN, FORMULATE AND EXECUTE RESEARCH, EXPLORATORY AND ADV. DEVELOPMENT, AND MANUFACTURING METHODS FOR NEW MATERIALS OF ALL CLASSES IN SUPPORT OF THE AF MISSION. ACT AS AFSC FOCAL POINT FOR MATERIALS TECHNOLOGY INFORMATION. INSURE TIMELY TRANSITIONING OF NEW MATERIALS AND TECHNOLOGY TO AF SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MATERIALS AND TECHNIQUES FOR A/C STRUCTURAL INTEGRITY AND RELIABILITY.
MATERIALS AND TECHNIQUES FOR AF WEAPONS SURVIVABILITY AND HARDENING.
TACTICAL AND LIMITED WARFARE MATERIALS AND TECHNOLOGY SUPPORT.
MANUFACTURING TECHNOLOGY OF NEW MATERIALS FOR SYSTEMS APPLICATION.
ADV COMPOSITES, METALS AND ALLOYS FOR AIRFRAME AND PROPULSION STRUCTURES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR AFROSPACE STRUCTURES, TPS FOR BALLISTIC RV, ROCKET MOTOR NOZZLES AND ENGINES, FLUIDS, LUBRICANTS, FLUID CONTAINMENT, PROPULSION, COATINGS, FIBERS, ARMOR, EM WINDOWS, SENSORS, DISPLAYS, LASERS AND OPTICAL DEVICES ELECTRONIC COMPONENTS, NON-DESTRUCTIVE TESTING, POLYMERS, ADHESIVES, NONMETALLIC MATRIX COMPOSITES, ELASTOMERS, METALS, ALLOYS, METAL AND CERAMIC COMPOSITES, METAL PROCESSING, INTERMETALLICS, CERAMICS, STATIC AND DYNAMIC BEHAVIOR. JOINING. GRAPHITE. ELECTRONIC AND MAGNETIC MATERIALS. PHYSICAL-CHEMICAL ANALYSIS. OTHER MAJOR MATERIALS FUNCTIONS. MANUFACTURING TECHNOLOGY. SYSTEMS APPLICATIONS. SYSTEMS SUPPORT AND INFORMATION CENTERS--DOD DEFENSE METALS AND CERAMICS, THERMOPHYSICAL AND ELECTRONIC PROPERTIES, METAL MACHINABILITY, AND MECHANICAL PROPERTIES.

INSTALLATION AEROSPACE RESEARCH LABORATORIES, WRIGHT-PATTERSON AIR FORCE BASE, OHIO
 COMMAND. OFFICER COL WM K MURAN, JR CHIEF SCIENT. DR. HANS J P VON OHAIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	12.656	12.294
TOTAL PROCUREMENT	0.020	0.020
TOTAL C+M	0.000	0.000
TOTAL OTHER	1.237	1.284
TOTAL ANNUAL LAB	13.893	13.578
TOTAL IN-HOUSE	8.761	9.713
TOTAL IN-HOUSE RDT+E	7.524	8.429
ANNUAL OPERATING COST	1.291	1.756

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	81	11	61	20
CIVILIAN	228	57	108	120
TOTAL	309	68	169	140

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
50	124.114	28.512	34.719	187.345	10.353	11.910

...MISSION

CONDUCTS RESCH IN PHYSICAL + ENGRG SCIENCES OFFERING GREATEST POTENTIAL TO CONTINUE SUPERIOR AF OPERATIONAL CAPABILITY. PARTICIPATES IN EFFORTS TO REDUCE LEAD TIME BETWEEN DISCOVERY OF NEW KNOWLEDGE + ITS APPLICATION TO ADVANCMT OF AEROSPACE TECHNOLOGY + MAINTNCE OF OPERATIONAL SUPERIORITY.

...CURRENT IMPORTANT PROGRAMS

RESEARCH ON AEROMECHANICS OF ENERGETIC FLOWS RELEVANT TO V/STOL CONCEPTS. INVESTIGATION OF STRUCT AND PROPERTIES OF SEMICONDUCTS AND METAL OXIDES. FUNDAMENTAL RESCH ON FLUID DYNAMIC ENERGY AND MOMENTUM EXCHNGE PROCESSES. STUDY OF HIGH-TEMPERATURE OXIDATION BEHAVIOR OF METALS AND CERAMICS. RESEARCH ON VOLATILE AND THERMALLY STABLE CHELATES OF METALLIC ELEMENTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ARL CONDUCTS AND SPONSORS FUNDAMENTAL RESEARCH IN STRUCTURE AND PROPERTIES OF SOLIDS CHEMICAL PROPERTIES AND PROCESSES THERMOMECHANICS HIGH-VELCCITY FLUID MECHANICS AEROSPACE SIMULATION TECHNIQUES APPLIED MATHEMATICS PLASMA DYNAMICS GENERAL AND ATOMIC PHYSICS ENERGY CONVERSION AND SOLID STATE PHYSICS. SUPPORT FACILITIES INCLUDE GLASS SHOP, MACHINE SHOP AND 15,000 VOLUME TECHNICAL LIBRARY. EXPERIMENTAL FACILITIES INCLUDE A HIGH REYNOLDS NUMBER SUPERSONIC TUNNEL 4 HYPERSONIC WIND TUNNELS AND A SUPERSONIC COMBUSTION FACILITY TWO VAN DE GRAAFF ACCELERATORS AND A 18 MEV IOT TANDEM ACCELERATOR A 1000-ATM ARC PLASMA FACILITY A TANDEM ION-MOLECULE MASS SPECTROMETER AND CAPABILITY FOR GROWTH OF THIN PLATELET TYPE II-VI CRYSTALS OF A VERY HIGH DEGREE OF PURITY AND SURFACE PERFECTION.

INSTALLATION

FRANK J. SEILER RESEARCH LABORATORY, ACADEMY, COLO.

COMMANDING OFFICER COL MILTON D SPRINKEL C.S. LTCOL HAROLD BUCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.503	2.485
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.024	0.024
TOTAL ANNUAL LAB	0.527	2.509
TOTAL IN-HOUSE	0.527	0.509
TOTAL IN-HOUSE RDT+E	0.503	0.485
ANNUAL OPERATING COST	0.022	0.024

PERSONNEL	PERSONNEL DATA (END CF FY 1970)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	24	13	20		4
CIVILIAN	14	1	3		11
TOTAL	38	14	23		15

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	7.855	2.860	0.242	10.955	1.062	1.016

...MISSION

CONDUCT RESEARCH IN AEROSPACE MECHANICS, APPLIED MATHEMATICS + CHEMISTRY. ENCOURAGE + SUPPORT ACADEMY FACULTY + CADET RESEARCH BY DIRECT PARTICIPATION, PROGRAMMING + USE OF COMPUTERS + SUMMER LAB PROG. FOCAL POINT FOR USAF ACADEMY RESEARCH PROPOSED TO THE BASIC RESEARCH LABORATORIES, AFSC.

...CURRENT IMPORTANT PROGRAMS

FUEL CELL AND BATTERY STUDIES-ALUMINUM ANODES IN MOLTEN SALT ELECTROLYTE SYNTHESIS AND CHARACTERIZATION OF ORGANOMETALLIC MONOMERS + POLYMERS -- OPTIMIZATION PROGRAMING AND CONTROL MATH MODELS GUIDANCE SYSTEMS DIFFERENTIAL GAMES IMPERFECT INFO, NONLINEAR CONTROL THEORY + ESTIMATES MECH OF FLUIDS LOW DENSITY SHOCK WAVES, RAM-WING THEORY, AERODYNAM SHAPES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MATH OPTIMIZATION CONTROL AND GUIDANCE SYSTEMS USING BURROUGHS 15500 COMPUTER. ORGANOMETALLIC + ELECTROCHEMISTRY + NITROALIPHATIC AND FLUOROALIPHATIC CHEMISTRY USING 6 POSITION LAB + INSTRUMENT ROOM CONTAINING ANAL NUC MAG RESONATOR SPECTROMETER, X-RAY EQUIPMENT, INFRARED SPECTROPHOTOMETER, MASS SPECTROMETER, AUTOMATIC GAS CHROMATOGRAPH + OTHER EQUIP. FLUID DYNAMICS RESEARCH USING 17 INCH LOW DENSITY SHOCK TUBE AND ASSOCIATED INSTRUMENTATION, 2-INCH HIGH-DENSITY SHOCK TUBE + WIND TUNNELS. SUPPORT USAF ACADEMY COMPUTER EDUCATION COURSES AND EDUCATIONAL RESEARCH IN USE OF COMPUTERS, ENGINEERING COURSES + RESEARCH USING BURROUGHS 85520 COMPUTER WITH 20 REMOTE TERMINALS AND CAL COMP PLOTTER.

INSTALLATION: CAMBRIDGE RESEARCH LABORATORIES, L. G. HANSCOM FIELD, MASS.

COMMANDER COL. DALE J. FLINDERS CHIEF SCIENTIST DR. JOHN R. HOWARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	55.046	52.897
TOTAL PROCUREMENT	0.152	2.000
TOTAL O+M	0.021	0.021
TOTAL OTHER	1.911	2.959
TOTAL ANNUAL LAB	57.130	53.877
TOTAL IN-HOUSE	30.532	33.825
TOTAL IN-HOUSE RDT+E	28.620	30.865
ANNUAL OPERATING COST	6.500	6.722

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	178	9	76	102
CIVILIAN	1054	154	605	449
TOTAL	1232	163	681	551

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
921	557.759	21.900	120.426	700.085	18.473	31.349

...MISSION

CONDUCTS AND SUPPORTS AF RELEVANT RESEARCH AND EXPLORATORY DEVELOPMENT IN ENVIRONMENTAL, ENGINEERING, AND PHYSICAL SCIENCES WITH MAJOR EMPHASIS ON GEOPHYSICS AND ELECTRONICS. ALSO CONDUCTS AND SUPPORTS SPECIFICALLY ASSIGNED ADVANCED DEVELOPMENT EFFORTS.

...CURRENT IMPORTANT PROGRAMS

IONOSPHERIC MAPPING AND FORECASTING FOR COMMUNICATIONS
SHORT-RANGE TERMINAL FORECASTING
RADIATION HARDENING OF DEVICES AND INTEGRATED CIRCUITS
OPTICAL AND INFRARED BACKGROUND MEASUREMENTS
DENSITY SATELLITE MEAS FOR LOW-ALTITUDE ORBITAL SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL, AEROSPACE, OPTICAL, AND SOLAR PHYSICS, IN EM WAVE PROPAGATION, AND IN ELECTRONICS, ENERGY CONVERSION, SOLID STATE AND INFORMATION SCIENCES RELATING TO AIR FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE RADIO AND OPTICAL TELESCOPES FOR SOLAR RESEARCH, S, X, AND L BAND RADARS AND A C-130 AIRCRAFT FOR METEOROLOGICAL RESEARCH, ROCKET AND BALLOON LAUNCH FACILITIES, TWO KC-135 AND A C-130 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND NEAR SPACE STUDIES, A C-130 AIRCRAFT FOR TERRAIN REMOTE SENSING AND A GRAVITY AND SEISMIC OBSERVATORY, FACILITIES FOR GROWTH OF ELECTRONIC MATERIALS, A VAN DE GRAFF ACCELERATOR, COBALT 60 SOURCE, 12-MEV LINAC, 23-FOOT MILLIMETER-WAVE ANTENNA ALL FOR ELECTRONICS-RELATED PROGRAMS, AND A DIRECT-COUPLED COMPUTATIONAL FACILITY.

INSTALLATION

OFFICE OF RESEARCH ANALYSES, HOLLOMAN AIR FORCE BASE, N. MEX.

COMMANDER- COL ERNEST J DAVIS, JR. TECHNICAL DIRECTOR- DR GERHARD R EBER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.631	0.609
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.237	0.229
TOTAL ANNUAL LAB	0.868	0.898
TOTAL IN-HOUSE	0.868	0.898
TOTAL IN-HOUSE RDT+E	0.631	0.609
ANNUAL OPERATING COST	0.235	0.216

PERSONNEL	PERSONNEL DATA (END CF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	15	2	10	5
CIVILIAN	27	5	16	11
TOTAL	42	7	26	16

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
0	4.676	1.203	5.667	11.486	0.189	0.094

...MISSION

TO DEVELOP DECISION INFORMATION TO ASSIST HQ AFSC, DCS/DEVELOPMENT PLANS IN THE TECHNICAL EVALUATION OF PROPOSED SYSTEMS AND CONCEPTS TO IMPROVE AIR FORCE OPERATIONAL CAPABILITY.

...CURRENT IMPORTANT PROGRAMS

MANAGEMENT OF STRATEGIC FORCES MISSION ANALYSIS.
THRUST AUGMENTATION STUDY FOR V/STOL AIRCRAFT.
SPECTRUM ANALYSIS RADAR APPLICATION STUDY.
OPTIMIZATION OF INSTALLED JET ENGINES IN LONG-RANGE LOGISTIC AIRCRAFT.
NUMERICAL ANALYSIS OF COMPRESSIBLE FLOW OVER AXISYMMETRICAL BODIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMPLISHES OR PARTICIPATES IN MISSION ANALYSES TO IDENTIFY CONCEPTS OF SYSTEMS OR EQUIPMENT WHICH WILL IMPROVE AIR FORCE OPERATIONAL CAPABILITIES. ACCOMPLISHES TECHNOLOGY APPLICATION STUDIES TO IDENTIFY POSSIBLE OPERATIONAL IMPROVEMENTS RESULTING FROM THE EXPLOITATION OF NEW TECHNOLOGY. PARTICIPATES IN THE PREPARATION OF THE RATIONALE PORTION OF CONCEPT FORMULATION PACKAGES/TECHNICAL DEVELOPMENT PLANS OR PROPOSALS FOR ADVANCED DEVELOPMENT PROGRAMS. EVALUATES THE TECHNICAL FEASIBILITY AND/OR EFFECTIVENESS OF PROPOSED TECHNIQUES, EQUIPMENT, OR SYSTEM CONCEPTS. ANALYZES THE SPECTRUM OF ONGOING RESEARCH PROJECTS TO IDENTIFY ANY GAPS AND/OR ATTRACTIVE AREAS WHICH SHOULD BE INVESTIGATED AS POSSIBLE SOURCES OF NEW TECHNOLOGY POSSESSING MILITARY UTILITY. OPERATES A TECHNICAL LIBRARY AND A DOCUMENTS SERVICE CENTER.

INSTALLATION 6571 AEROMEDICAL LABORATORY, HOLLOMAN AIR FORCE BASE, N. MEX.

COL R.G.MCIVER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	1.402	2.312
TOTAL PROCUREMENT	0.000	2.202
TOTAL O+M	0.000	2.000
TOTAL OTHER	0.530	0.500
TOTAL ANNUAL LAB	1.932	2.812
TOTAL IN-HOUSE	1.531	2.737
TOTAL IN-HOUSE RDT+E	1.001	2.237
ANNUAL OPERATING COST	1.043	2.113

PERSONNEL	PERSONNEL DATA (END OF FY 1973)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PRCF	
MILITARY	57	14	23	34
CIVILIAN	27	7	11	16
TOTAL	84	21	34	50

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
45	61.000	8.000	1393.000	1462.000	2.774	2.020

...MISSION
TO FUNCTION AS A LIMITED NATIONAL PRIMATE FACILITY.
CONDUCT COMPARATIVE AEROSPACE MEDICAL RESEARCH IN PRIMATES.
TO EVALUATE IMPACT INJURIES AND PROTECTIVE METHODS.
SCHEDULED FOR DEACTIVATION IN DEC 70.

...CURRENT IMPORTANT PROGRAMS
WORK REST CYCLES FOR AIRCREWS/GROUND CREWS
CHRONIC DRUG STUDIES
VISION HAZARDS RESEARCH
PERFORMANCE RESEARCH IN UNUSUAL ENVIRONMENTS
DECELERATION PROTECTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES
AFMCC FACILITIES COMPUTER, CENTRIFUGE, ENVIRONMENTAL CHAMBERS
IMPACT DEVICES: DAISY DECELERATOR, DOPPER SLEW, HYGE
CLINICAL LABS: CLINICAL AND EXPERIMENTAL CHEMISTRY PROCEDURES
VETERINARY SUPPORT FACILITIES CLINIC, SURGERY, PATHOLOGY
CIRCADIAN RHYTHM CHAMBER TEMPERATURE AND HUMIDITY CONTROL
MULTI-ANIMAL TESTING CONSOLES
CONSORTIUM HOUSING AND FREE RANGING ENVIRONMENT FOR CHIMPANZEES
AUTOMATED SLEEP STAGING CAPABILITY AN ANALOG-DIGITAL HYBRID COMPUTER
RADIATION LABS: AEC, LOS ALAMOS, NM, AND WHITE SANDS MISSILE RANGE, NM
AUDITION CHAMBER USED FOR NEUROPHYSIOLOGICAL STUDIES

INSTALLATION SCHOOL OF AVIATION MEDICINE, BROOKS AIR FORCE BASE, TEX.

JOSEPH M QUASHNOCK COLONEL USAF MC

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	9.569	11.519
TOTAL PROCUREMENT	0.002	0.196
TOTAL O+M	0.295	0.398
TOTAL OTHER	5.993	8.866
TOTAL ANNUAL LAB	15.659	20.971
TOTAL IN-HOUSE	12.776	16.317
TOTAL IN-HOUSE RDT+E	6.686	6.865
ANNUAL OPERATING COST	2.442	2.442

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	521	72	162	359
CIVILIAN	393	45	149	244
TOTAL	914	117	311	603

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
93	425.450	89.484	51.677	566.611	13.407	20.986

...MISSION
RESEARCH IN LIFE SUPPORT AEROSPACE MEDICINE
BIOLOGICAL SCIENCES
CLINICAL EVALUATIONS
EDUCATION AND TRAINING

...CURRENT IMPORTANT PROGRAMS
BIOLOGICAL EFFECTS OF COHERENT RF AND NUCLEAR RADIATION
CARE AND SELECTION OF AIR FORCE CREWS
DEVELOPMENT OF AEROMEDICAL EQUIPMENT
DEFINITION AND DEVELOPMENT OF HABITABLE CREW ENVIRONMENTS
EFFECTS OF INFECTIOUS DISEASES ON AIR FORCE OPERATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
USAF SCHOOL OF AEROSPACE MEDICINE - RESEARCH IN AEROSPACE MED PROBLEMS.
ENVIRONMENTAL STRESS, DEVELOPMENTAL ENGINEERING, RADIOBIOLOGY, LASER
HAZARDS, BIOMETRICS, BIOSCIENCE, BIOMED ENGINEERING FAC AND EPIDEMIOLOGY
FACILITIES. TELEMETRY RECEIVING STATION, HUMAN CENTRIFUGE, VARIOUS TEST
CELLS AND CHAMBERS, COCKROFT-WALTON ACCELERATOR NEUTRON GENERATOR,
PHILCO 2000 DIGITAL COMPUTER, ROTATIONAL FLIGHT SIMULATOR, KILG-CURIE CO
-60 RADIATION SOURCE. AEROSPACE MEDICAL SCIENCE LAB - AEROSPACE MEDICAL
CONSULTATIVE SERVICES, AEROMEDICAL EVALUATION. CLINICAL SCIENCE, OCULO-
THERMAL, RESEARCH OPTICAL, AUDIOLOGY, VESTIBULAR, PSYCHOBIOLOGY, RADIO-
ISOTOPE, AEROSPACE MEDICAL STANDARDS, AND LASER HAZARDS FACILITIES.
ZEISS PHOTO-COAGULATOR, VECTORCARDIOGRAPH MACHINE, BALLISTOCARDIOGRAPH
MACHINE, PHONOCARDIOGRAPH MACHINE, AND MASS SPECTROMETERS.

INSTALLATION 6570 AEROSPACE MEDICAL RESEARCH LABORATORY, WRIGHT-PATTERSON
AIR FORCE BASE, OHIO
COMMANDER-COLONEL C.H.KRATOCHVIL TECH.DIRECTOR DR.F.W.BERNER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	7.432	8.337
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	1.490	1.570
TOTAL ANNUAL LAB	8.930	9.907
TOTAL IN-HOUSE	5.206	5.690
TOTAL IN-HOUSE RDT+E	3.700	4.120
ANNUAL OPERATING COST	0.705	0.012

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	126	27	80	46
CIVILIAN	166	26	96	70
TOTAL	292	53	176	116

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
30	112.946	51.020	60.747	232.713	11.307	21.006

...MISSION

CONDUCT R+D TO DEFINE MAN'S PERFORMANCE, PHYSIOLOGICAL TOLERANCE, PERSONAL PROT NEEDS, AND DEVELOP PROTECTIVE TECHNIQUES AND EQUIP TO SUSTAIN AND ENHANCE HIS PERF IN AF OPERATIONAL ENVIRONMENTS. TO EST DESIGN CRITERIA AND PROVIDE SUPPORT TO SYSTEM DEVELOPMENT IN ABOVE AREAS.

...CURRENT IMPORTANT PROGRAMS

DEFINE TOXIC HAZARDS-ENVIR POLLUTION EFF OF MISSILE OPS -PROPELLANT TEST. DESIGN NEW CONCEPT PRESSURE SUIT-HELMET ASSEMBLY FOR ADVANCED AIRCRAFT. PROVIDE DATA ON MAN INTERFACE IN DESIGN, USE OF MULTISENSOR RECCN EQUIP. INV TECH OF DEPLOYING LONG LINE FROM A/C FOR RESCUE, RECON, COMM, SUPPLY. DETERMINE MAN'S EXP LIMITS, CAPABILITY, PROT REQ DURING ESCAPE FROM ADV A/C.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FUNCTIONS-1. IDENTIFY, QUANTITATE AND DETERMINE TOXIC HAZARDS AND ENVIRONMENTAL POLLUTION EFFECTS CREATED BY AF OPS. 2. PROVIDE NEW CONCEPTS, DESIGN CRITERIA FOR PERSONAL PROT EQUIP--PRESSURE SUITS, G-SUITS, LIFE SUPPORT, RESTRAINT SYSTEMS, HELMETS. 3. PROVIDE HUMAN ENGINEERING DATA, PRINCIPLES AND TECHNIQUES APPLICABLE TO DESIGN, TEST, OPN, MAINTENANCE OF AF SYSTEMS AND EQUIP. 4. STUDY EFFECTS, DEFINE MAN'S TOLERANCE AND PERF DURING BIODYNAMIC AND COMBINED STRESS OF AF OPS.

MAJOR EQUIP. FACILITIES-HUMAN ENGINEERING RESEARCH LAB, TOXIC HAZARDS RESEARCH LAB, RESEARCH ANIMAL FACILITY, BIODYNAMIC NOISE-VIBRATION-IMPACT-ACCELERATION AND COMBINED STRESS LAB, MAN-RATED ALTITUDE AND ENVIRONMENT CHAMBER SIMULATION FACILITIES.

INSTALLATION: AEROSPACE MEDICAL LABORATORY (CLINICAL),
LACKLAND AIR FORCE BASE, TEX.
COMMANDER BRIG. GEN. EDGAR UNDERWOOD DIRECTOR FRED G. CONRAD COLONEL USAF

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	0.183	0.183
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	0.312	0.312
TOTAL ANNUAL LAB	0.495	0.495
TOTAL IN-HOUSE	0.442	0.442
TOTAL IN-HOUSE RDT+E	0.130	0.130
ANNUAL OPERATING COST	0.049	0.049

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	TOTAL PROF
MILITARY	28	5	11	17
CIVILIAN	2	2	0	2
TOTAL	30	7	11	19

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	6.614	1.467	1.800	9.881	0.154	2.190

...MISSION
PROVIDE THE USAF MEDICAL CORPS RESEARCH CAPABILITY IN CLINICAL MEDICINE.
IMPROVE DIAGNOSTIC METHODS TO SOLVE MEDICAL PROBLEMS UNIQUE TO THE USAF.
ENHANCE USAF EFFECTIVENESS BY IMPROVED THERAPY AND PREVENTIVE MEASURES.
MAINTAIN A HIGH LEVEL OF HEALTH AND FITNESS AMONG USAF POPULATION.

...CURRENT IMPORTANT PROGRAMS
DEVELOP TECHNIQUES TO ENHANCE SURVIVAL OF ORGAN HOMOTRANSPLANTS.
STUDY GLOMERULAR ANTIBODIES IN ACUTE AND CHRONIC GLOMERULONEPHRITIS.
EVALUATE NEW CANCER CHEMOTHERAPY AND DRUGS USED IN NEW COMBINATIONS.
INVESTIGATE ALDOSTERONE/ANGIOTENSIN IN UNILATERAL RENAL HYPERTENSION.
EVALUATE REHABILITATION CAPABILITIES FOLLOWING MYOCARDIAL INFARCTION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
PROVIDE USAF MEDICAL CORPS WITH RESEARCH FACILITIES TO CONDUCT MEDICAL,
SURGICAL AND DENTAL RESEARCH. MAINTAIN AN OPERATING SUITE WITH
VETERINARY SUPPORT. SPECIALTY LABORATORIES IN IMMUNOLOGY, HEPATOLOGY,
INFECTIOUS DISEASE, EXERCISE PHYSIOLOGY, ENDOCRINOLOGY AND BIOCHEMISTRY.
HAVE CAPABILITY TO PERFORM SOPHISTICATED ASSAYS OF TRACE HUMAN HORMONES,
INSULIN, GROWTH HORMONE, ANGIOTENSIN, ALDOSTERONE, ETC., SERUM COMPLEMENT, VIT
B12, FOLIC ACID AND LEUKOCYTE HISTOCOMPATIBILITY. TOTAL CAPABILITY TO
STUDY EXERCISE PHYSIOLOGY, SERUM ENZYMES, CONDITIONING AND REHABILITATION.
MAINTAIN FACILITIES, INSTRUMENTATION AND MONITORING EQUIPMENT TO PURSUE
RESEARCH STUDIES AND DEVELOP TECHNIQUES IN CONSONANCE WITH THE HIGHEST
STANDARDS OF MEDICAL CARE AND CLINICAL INVESTIGATION, INCLUDING ATOMIC
ABSORPTIOMETER, LIQUID SCINTILLATION COUNTER, ULTRACENTRIFUGATION AND RECORDERS.

INSTALLATION ROME AIR DEVELOPMENT CENTER, GRIFFISS AIR FORCE BASE, N. Y.

COLONEL R. J. C. MATHEIS COMMANDER DR. JOHN S. BURGESS CHIEF SCIENTIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+F	59.168	69.800
TOTAL PROCUREMENT	25.282	25.500
TOTAL U+M	3.891	4.200
TOTAL OTHER	34.654	32.300
TOTAL ANNUAL LAB	132.995	128.800
TOTAL IN-HOUSE	25.926	26.800
TOTAL IN-HOUSE ROT+F	22.128	23.800
ANNUAL OPERATING COST	6.965	7.200

	PERSONNEL DATA (END OF FY-69)			
	STRENGTH	PHD'S	PROF	NON-PROF
MILITARY	326	2	186	140
CIVILIAN	1215	11	595	623
TOTAL	1541	13	781	760

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2701	754.733	92.423	176.247	1023.376	22.861	78.494

...MISSION

PLANS AND EXECUTES EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS FOR ELECTROMAGNETIC INTELLIGENCE AND RECON PROCESSING, DISPLAYS, SURVEILLANCE, RELIABILITY AND COMPATIBILITY, COMMUNICATIONS FOR AIR FORCE, DOD AND OTHER ORGANIZATIONS, PROVIDES TECHNICAL CONSULTATION TO MAJOR AIR COMMANDS.

...CURRENT IMPORTANT PROGRAMS

HIGH PEAK POWER-NANOSECOND PULSE RADAR TECHNIQUES DEVELOPMENT
INTELLIGENCE DATA HANDLING PROGRAMS FOR DOD
INTEGRATED COMMUNICATION NAVIGATION AND IDENTIFICATION TECHNIQUES
SIGNAL PROCESSING TEST FACILITY FOR FINE GRAIN SATELLITE DIAGNOSIS
ELECTROMAGNETIC RELIABILITY AND COMPATIBILITY TECH AND FIELD SUPPORT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROVIDES A WELL BALANCED COMBINATION OF PROFESSIONAL SKILLS AND EXPERIMENTAL FACILITIES TO MARRY THEORETICAL STUDIES TO POTENTIAL APPLICATION. BY COMBINATION OF AIRBORNE LABORATORY MEASUREMENT IN INSTRUMENTED FLIGHT-TEST AIRCRAFT AND FLEXIBLE ON-BASE AND OFF-BASE EXPERIMENTAL SITES, A HIGH DEGREE OF SOPHISTICATION IS ACHIEVED FOR CONDUCTING GROUND ELECTROMAGNETIC STUDIES AND EXPERIMENTS. CAPABILITIES ARE AVAILABLE FOR CONDUCTING HIGH AND LOW-POWER EXPERIMENTS OVER ELECTROMAGNETIC SPECTRUM FROM EXTREMELY LOW FREQUENCIES TO LIGHT. SCIENTIFIC STUDIES ARE PERFORMED USING ONE OF THE NATION'S LARGEST ON-LINE TIME-SHARING COMPUTERS. RESOURCES ARE PRIMARILY USED IN EXPLORATORY AND ADVANCED DEVELOPMENTS AND EXTENDING TO TECHNICAL SUPPORT THIRTY-FIVE OTHER AIR FORCE AND DOD ORGANIZATIONS.

INSTALLATION AVIONICS LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

COL JOHN E KULPA JR COMMANDER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	95.115	92.232
TOTAL PROCUREMENT	0.200	2.200
TOTAL O+M	0.000	2.200
TOTAL OTHER	0.200	2.200
TOTAL ANNUAL LAB	95.115	92.232
TOTAL IN-HOUSE	7.665	8.115
TOTAL IN-HOUSE RDT+E	7.665	8.115
ANNUAL OPERATING COST	2.850	3.172

PERSONNEL	PERSONNEL DATA (END OF FY 1972)		TOTAL PRGF	NON- PRGF
	AUTHORIZED STRENGTH	TOTAL PRGS		
MILITARY	85	5		15
CIVILIAN	467	9	274	193
TOTAL	553	14	350	208

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
215	195.245	5.324	162.528	362.877	11.207	12.845

...MISSION

PLAN, FORMULATE AND EXECUTE EXPLOR AND ADV DEV PGMS IN COMMUNICATIONS, LASERS AND MOLECULAR ELECTRONICS, ELECTROMAGNETIC WARFARE AND VEHICLE ENVIRONMENT, CAMOUFLAGE AND SYSTEMS, NAVIGATION, GUIDANCE AND WEAPON DELIVERY AND AEROSPACEBORNE RECONNAISSANCE AND SURVEILLANCE.

...CURRENT IMPORTANT PROGRAMS

EXPLOIT TECHNIQUES FOR TGT DETECTION+TGT DESIGNATION+WEAPON DELIVERY.
PEN-TRATION AIDS+OPTICAL COUNTER-ASURES FOR MANNED AIRCRAFT.
AIR-TO-AIR NON-COOPERATIVE IFF.
POLY-FREQUENCY+POLY-POSITION HIGH-RESOLUTION RADAR.
DEV L INTEGRATED AVIONIC CONCEPTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS IN-HOUSE R&D TO MAINTAIN A HIGH DEGREE OF TECHNICAL COMPETENCE. ACTS AS AFSC FOCAL POINT FOR THE IV ASSIGNED TECHNICAL AREAS. EXECUTES ASSIGNED PROJECTS FOR AND WORKS CLOSELY WITH ARMY, NAVY, NASA, AFPA, + OTHER GOVT AGENCIES. SUPPORTS AFSC PROGRAMS AND INSURES THE RAPID APPLICATION OF RESEARCH+TECHNOLOGY TO ADVANCED SYSTEMS. PROVIDES TECHNICAL SUPPORT TO CURRENT+FUTURE SYSTEMS PROGRAMS+ OPERATIONAL SUPPORT PROJECTS IN AREAS OF ASSIGNED MISSION. PERFORM CONCEPTUAL PLANNING, ANALYSIS+STUDIES. MAJOR FAC/ EQUIP ARE-OPTICAL RESEARCH FACILITY WITH A 100-INCH-APERTURE OPTICAL COLLIMATOR-DYNAMIC ANALYZER FOR ADVANCED RECON SYSTEMS-CELESTIAL GUID-ANCE RESEARCH LAB WITH A 12-1/4 CALS-GRAIN TELESCOPE UNDER A 16-FT DIA OBSERVATORY DOME-LASER RESEARCH FAC-ELECTROOPTICAL OYE OBSERVATORY-SOLID STATE+INTEGRATED CIRCUITS LAB-ELECTROMAGNETIC TECHS+COUNTER-ASURES LAB.

INSTALLATION HUMAN RESOURCES LABORATORY, BROOKS AIR FORCE BASE, TEX.

JOHN G DAILLY COLONEL USAF CMDRS AFHRL CHIEF SCIENTIST POS IS VACANT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	5.829	9.355
TOTAL PROCUREMENT	3.688	2.808
TOTAL C+M	2.028	2.202
TOTAL OTHER	0.978	2.978
TOTAL ANNUAL LAB	7.487	10.333
TOTAL IN-HOUSE	3.652	3.882
TOTAL IN-HOUSE RDT+E	2.674	2.984
ANNUAL OPERATING COST	3.742	2.742

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL BACE		
MILITARY	150	0	0	0	144
CIVILIAN	199	29	86		113
TOTAL	355	38	138		217

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
13	63.832	28.782	0.428	92.962	1.831	2.473

...MISSION

PRINCIPAL AF INTERFACE WITH SCIENCE, INDUSTRY, + OTHER GOVT AGENCIES FOR MANAGEMENT OF BASIC, EXPLORATORY, AND ADVANCED DEVELOPMENT RED PROGRAM IN PERSONNEL SELECTION, MANAGEMENT AND TRAINING, AND THE EVALUATION OF NEW TECHNICAL DEVELOPMENTS FOR APPLICATION TO AF PROBLEMS.

...CURRENT IMPORTANT PROGRAMS

HUMAN FACTORS IN DESIGN OF TRAINING SYSTEMS
SIMULATION TECHNIQUES FOR AEROSPACE CREW TRAINING
PERSONNEL SELECTION AND MANAGEMENT R + C
DESCRIBING, EVALUATING + STRUCTURING AF OCCUPATIONS.
AUDIO VISUAL EQUIPMENT, RESEARCH SIMULATOR COCKPIT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONAL AREAS OF OCCUPATIONAL ANALYSIS, PERSONNEL PROCUREMENT, PERSONNEL CLASSIFICATION, RETENTION AND SEPARATION
PERSONNEL SYSTEM SIMULATION MODELS, MANPOWER REQTS OF AF WEAPON SYSTEMS
TRAINING TECHNIQUES, DESIGN OF SIMULATORS AND OTHER TRAINING DEVICES
CAPABILITIES+ STUDY TRAINING PROBLEMS ASSOCIATED WITH VEHICULAR CONTROL
OPERATOR TASKS, CHECKOUT AND MAINTENANCE OF ELECTRONIC EQUIPMENT.
TECHNICAL AND PROFESSIONAL LIBRARY, PERSONNEL TESTING ROOMS
EDDD MANPOWER DEVELOPMENT PROGRAM EVALUATION AND IMPROVEMENT.
INFINITY OPTICS DISPLAY, RAYTHEON PB440 DIGITAL COMPUTER
IBM 7840 ELECTRONIC DATA PROCESSING SYSTEM W/6 TAPES DISC FILE+
CARD READER/PUNCH PRINTER AND INQUIRY STATION/VISUAL DISPLAY DEVICE, CRT,
ELECTRONICS ASSOCIATES TR40 ANALOG COMPUTER

INSTALLATION WEAPONS LABORATORY, KIRTLAND AIR FORCE BASE, N. MEX.

COMMANDER, COL ROBERT W ROWDEN. CHIEF SCIENTIST, MAJ WILLIAM A WHITAKER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL ROT+E	55.581	55.200
TOTAL PROCUREMENT	0.200	0.000
TOTAL O+M	0.193	0.155
TOTAL OTHER	0.017	0.045
TOTAL ANNUAL LAB	55.791	55.400
TOTAL IN-HOUSE	12.313	12.100
TOTAL IN-HOUSE ROT+E	12.291	12.050
ANNUAL OPERATING COST	1.500	1.650

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PROF'S	TOTAL PROF	NON- PROF
...	322	47	423	286
CIVILIAN	322	42	380	377
TOTAL	934	59	526	408

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
391	323.623	12.174	9.153	345.550	6.972	24.518

...MISSION

PLAN AND EXECUTE RSCH, EXPLOR, AND ADV DEV PGMS IN NUCLEAR WPNS EFFECTS AND COMPONENTS, ADV WPNS TECH, RADIATION HAZARDS, NUCLEAR AND ADV WPNS DELIVERY TECHNIQUES, NUCLEAR SAFETY, AND CIVIL ENGR. SPECIFY AND ASSESS SYS HARDNESS. PROVIDE TECH AND MGT ASSIST IN SYS DEV, TEST, MOD AND OPN.

...CURRENT IMPORTANT PROGRAMS

DEVELOP NUCLEAR EFFECTS SIMULATORS FOR S/V TESTING.
DEVELOPMENT OF ADVANCED WEAPON SYSTEMS.
LEAD LABORATORY FOR THE AF INTEGRATED NUCLEAR EFFECTS PROGRAM.
DEVELOP METHODS TO PREDICT RADIATION HARDNESS OF SEMICONDUCTORS.
ADVANCED DEVELOPMENT OF AF CIVIL ENGINEERING TECHNOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUCLEAR WEAPONS EFFECTS RESEARCH, SIMULATION, SAFETY, TEST PARTICIPATION AND ANALYSIS OF WEAPONS SYSTEMS SURVIVABILITY/VULNERABILITY ARE CONDUCTED IN NUCLEAR ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION TESTS ON MISSILES AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATORS, GAS GUNS AND PULSE POWER AND X-RAY DEVICES. CIVIL ENGINEERING RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT USE SOILS, ENVIRONMENTAL, AND CHEMICAL LABORATORIES AND SHOCK TUBES FOR SIMULATION AND TESTS. LASER RESEARCH, APPLICATION AND DEVELOPMENT IN THE LASER/OPTICS LABORATORY USE LARGE AND HIGH POWER DEVICES. TECHNICAL LIBRARY, METALLURGY AND METROLOGY LABORATORIES, AN EQUIPMENT POOL OF VARIOUS DIAGNOSTIC AND MEASURING DEVICES, DUAL CDC-6600 COMPUTER AND MULTI-CHANNEL RECORDING AND DATA REDUCTION SUPPORT RESEARCH AND TESTS.

INSTALLATION: AEROPROPULSION LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

COL T P MOTT-SMITH CMDR. M P JOHANN DEP DIR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	52.563	52.293
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.927	0.500
TOTAL ANNUAL LAB	53.467	52.793
TOTAL IN-HOUSE	5.972	5.979
TOTAL IN-HOUSE RDT+E	5.862	5.879
ANNUAL PERMITTING COST	0.810	0.807

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	58	3	52	6
CIVILIAN	331	5	170	161
TOTAL	389	8	222	167

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
40	368.540	72.400	220.700	659.680	13.091	13.612

...MISSION

PLAN, FORMULATE AND EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS IN AIR-BREATHING AND ELECTRIC PROPULSION, FLIGHT POWER AND AIRCRAFT FUELS, LUBRICANTS AND HAZARDS. ENSURE THE RAPID APPLICATION OF RESEARCH AND TECHNOLOGY TO ADVANCED SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

TURBOFAN COMPRESSOR STABILITY LOSS ASSESSMENT
AIRCRAFT FUEL SYSTEM VULNERABILITY/JP-4 JP-8 EVALUATION
NUCLEAR RADIATION HARDENED SOLAR CELL ARRAY
INTEGRATION OF COMPONENTS FOR RAMJET-POWERED MISSILES
HIGH STAGE LOADING COMPRESSOR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ION ENGINE FACILITY-VACUUM CHAMBER 8 FT DIA. BY 25 FEET LONG
TURBOSHIFT ENGINE ALT CELL-FUEL CONTROL SYNTHESIS-CENTRAL DATA SYSTEM
SPACE PUMP VACUUM AND LIQUID METAL LOOP FACILITY 27 FT DIA BY 37 FT H
ENERGY CONVERSION/TRANSFER FACILITY-PROGRAMMABLE BATTERY TEST RIGS
LUBRICANTS RESEARCH FACILITY-SEAL RIGS, BEARING RIG, SEAL TEST RIGS
FUEL RESEARCH LABORATORY-CORROSION TESTING, AGING CHAMBERS, FUEL CHAMBER
ROTOR TEST FACILITY-UP TO 4000 HP-95 FT DIA-UP TO 5000 LB THRUST
TURBINE ENGINE TEST STANDS-1A SEA LEVEL STANDS TO 5000 LB THRUST
TURBOJET ENGINE ALTITUDE CELL TO 3000 LB THRUST, 52000 FT, MACH 1.5
PROPELLER WHIRL RIGS-FOUR RIGS TO 3000 HP, GYROSCOPIC TEST CHAMBER
RAMJET RESEARCH SHOCK TUNNEL-120 IN. DIA TEST SECTION-MACH 10-25, 0 MS
HEAT TRANSFER RESEARCH FACILITY-HYDROGEN COOLED TURBINE ENGINE BLADES

INSTALLATION FLIGHT DYNAMICS LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

COL J.R. MYERS COMD. OFFICER DR. DEMETRIUS ZONARS CHIEF SCIENTIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	51.779	48.711
TOTAL PROCUREMENT	0.342	2.262
TOTAL O+M	3.427	2.540
TOTAL OTHER	0.370	0.000
TOTAL ANNUAL LAB	52.226	49.211
TOTAL IN-HOUSE	13.917	16.131
TOTAL IN-HOUSE RDT+E	13.917	16.131
ANNUAL OPERATING COST	3.872	4.866

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	82	12	82		6
CIVILIAN	626	2	338		288
TOTAL	714	12	422		294

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
92	537.132	56.682	26.222	619.732	22.982	16.427

...MISSION

DEVEL OF CONTROL CONFIGURED FLT VEH DES FOR ACTIVE FLUTTER, RIDE AND MANUEVER CONTROL, AIR CUSHION LANDING GEAR DEVEL, DETERM OF DYNAMIC CHARACTERISTICS OF COMPOSITE STRUCTURES, EXPER TO OBTAIN DES CRITERIA ON DELAY-BUFFET ONSET TRANSONIC SPEEDS, DEF OF GND AND FLT DYN ENVIRONMENT.

...CURRENT IMPORTANT PROGRAMS

DETERMINED DESIGN CRITERIA FOR JOINTS IN FILAMENT COMPOSITE STRUCTURES. COMPL FIELD TESTS ESTAB ADURAL DETECTION CRITERIA FOR QUIET AIRCRAFT. PREPARE DESIGN GUIDELINES RE FRACTURE MECHANICS FOR AIRCRAFT APPLICATION. GROUND SIMULATION OF B-1A FLT CONTROL SYS FOR 3 CONTRACTORS DESIGNS. FLIGHT DEMONSTRATION POWERED EJECTION SEAT FOR INCREASED CREW SURVIVAL.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP FLIGHT CONTROL SYSTEM AND PILOT'S DISPLAY FOR LANDING SYSTEM FOR ZERO ZERO WEATHER. DEVELOP OPTIMAL FLIGHT VEHICLE DESIGN CRITERIA FOR NON-NUCLEAR COMBAT SURVIVABILITY. DESIGN FLIGHT CONTROL SYSTEM FOR FACTICAL ATK TO GROUND AND ATK TO AIR PRECISION WEAPON DELIVERY. DEMONSTRATE FULL SCALE AIR CUSHION LANDING GEAR PERMITTING MAXIMUM FLEXIBILITY IN SITES FOR GROUND CARGO DELIVERY BY AIRCRAFT. INTEGRATE TECHNOLOGIES FOR DESIGN OF ACFT FOR OPTIMAL TRANSONIC COMBAT EFFECTIVENESS. PLAN AND EXECUTE USAF EXPLORATORY AND ADVANCED DEV PROGRAMS FOR AEROSPACE FLT VEHICLE STRUCTURES FLT MECHANICS FLT CONTROL VEHICLE DYNAMICS AND VEHICLE EQUIPMENT. PROVIDE TECH OR MGT ASSIST IN SUPPORT OF STUDIES ANALYSE DEV PLANS TEST EVALUATION MODIFICATION OF AEROSPACE SYS AND EQUIP.

NOT REPRODUCIBLE

INSTALLATION: ROCKET PROPULSION LABORATORY, EDWARDS AIR FORCE BASE, CALIF.

COL HOWARD M. ESTES, JR., COMDG OFFICER D. M. ROSS, DEPUTY DIRECTOR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	37.485	27.600
TOTAL PROCUREMENT	0.000	0.000
TOTAL O+M	0.000	0.000
TOTAL OTHER	2.393	2.385
TOTAL ANNUAL LAB	39.798	29.985
TOTAL IN-HOUSE	13.977	12.885
TOTAL IN-HOUSE RDT+E	11.734	10.600
ANNUAL OPERATING COST	0.295	0.282

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	267	17	124	143
CIVILIAN	415	11	118	297
TOTAL	682	28	242	440

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
54400	751.213 149.346 87.165 993.726	29.572 26.895

...MISSION

PLAN, FORMULATE, PRESENT, AND EXECUTE THE AFSC EXPLOR AND ADV DEVELOPMENT PROGRAMS IN ROCKET PROPULSION SYS, COMPONENTS, PROPELLANTS AND ASSTG AND EQUIP. CONDUCT IN-HOUSE RSCH. ACT AS AFSC FOCAL POINT FOR INFORMATION IN THE ASSIGNED TECHNICAL AREAS.

...CURRENT IMPORTANT PROGRAMS

INCREASE TOGN PAYLOAD SURVIVABILITY AND PENetration CAPABILITY. INCREASE LIFE, STATION KPG, AND POINT ACCURACY OF SATELLITE SYS. INCREASE ABILITY OF STRATEGIC ACFT TO PENETRATE TO THE TARGET. PROVIDE MAX PROPULSIVE MANEUVERING FOR SPACECRAFT. HI-PERFORMANCE LOW-COST REUSABLE PROPULSION FOR PLACING PAYLOADS IN SYNCH ORBITS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A COMPONENT TEST LAB AND CENTRIFUGE FOR TESTING SMALL PROPULSION SYS AND COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS. FACILITIES FOR FORMULATING AND TESTING IN RKT MOTORS SMALL QUANTITIES OF NEW SOLID AND LIQUID PROPELLANTS. A CHEM LABORATORY FOR SYNTHESIS, ANALYSIS, AND FORMULATION OF NEW PROPELLANTS. A SOLID MOTOR TEST AND EVAL COMPLEX FOR INVESTIGATION OF COMBUSTION, AGING, STRUCTURAL INTEGRITY AND EXHAUST PLUMES. AMBIENT AND ALTITUDE TESTING OF TOXIC RKTs UP TO 100,000 LB THRUST. HOT AIR CAPABILITY TO TEST AIR-BREATHING PROPULSION UP TO MACH 4.0, 100,000 FT ALT. A FACILITY FOR TESTING RKT ENGINES UP TO 10,000,000 LB THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR W/S PROPULSION SYS OPTIMIZATION, TRADE-OFF AND MISSION STUDIES. A COMPUTER FACILITY FOR DESIGN, ANALYSIS, AND TEST. DATA REDUCTION. FABRICATION SHOPS FOR EXPER TEST HWRE AND TEST SYSTEMS.

INSTALLATION **ARMAMENT LABORATORY, EGLIN AIR FORCE BASE, FLA.**

COLONEL BENTON K PARTIN, COMMANDER BERNARD A KULP CHIEF SCIENTIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	17.848	23.512
TOTAL PROCUREMENT	8.888	8.888
TOTAL O&M	8.888	8.888
TOTAL OTHER	8.888	8.888
TOTAL ANNUAL LAB	17.848	23.512
 TOTAL IN-HOUSE	 6.221	 9.452
TOTAL IN-HOUSE RDT+E	6.221	9.452
ANNUAL OPERATING COST	8.888	8.888

PERSONNEL	PERSONNEL DATA (END OF FY 1972)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	148	9	185	35
CIVILIAN	231	7	148	83
TOTAL	371	16	293	118

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
41	52.182	51.492	36.418	139.882	4.782	2.431

...MISSION

PERFORMS EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT ON NONNUCLEAR MUNITIONS AND WEAPONS, TARGETS AND SCORERS, AND IN THOSE TECHNOLOGIES ASSOCIATED WITH ARMAMENT EFFECTIVENESS INCLUDING AIR-LAUNCHED MISSILES AND CONTROL AND WEAPONS DELIVERY SUBSYSTEMS.

...CURRENT IMPORTANT PROGRAMS

EXPLOSIVE FUEL MUNITIONS
TARGET-ACTIVATED MUNITIONS
ILLUMINATION AND TARGET MARKING
HIGH-ALTITUDE SUPERSONIC TARGET
CLOSE AIR SUPPORT GUIDED WEAPONS SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PYROTECHNIC FACILITY RESEARCH ON FLARES TARGET MARKERS
BOTANICAL FACILITY ECOLOGY STUDIES DEFOLIANT, PESTICIDES RESEARCH
HYDRODYNAMIC FACILITY RESEARCH ON EXPLOSIVES
RELATIVE MOTION FACILITY SIMULATES DYNAMIC AND PASSIVE SCORING SYSTEMS
AIRCRAFT GUNS AND ROCKETS
AREA-DEFENSE MUNITIONS MULTILAYERED EXPLOSIVE WARHEADS
ANTI-MATERIEL AND ANTIPERSONNEL MUNITIONS
HIGH-ALTITUDE AND HIGH SPEED TARGETS
HARD STRUCTURE MUNITIONS
FUZE LABORATORY FACILITY
INCENDIARY POLYMER AND FLAME FUELS LABORATORY
SUBSONIC WIND TUNNEL

INSTALLATION

FLIGHT TEST CENTER, EDWARDS AIR FORCE BASE, CALIF.

COL ROBERT M WHITE, COMMANDER.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	38.322	39.600
TOTAL PROCUREMENT	0.730	0.000
TOTAL O+M	0.898	0.900
TOTAL OTHER	25.643	25.700
TOTAL ANNUAL LAB	65.573	66.200
TOTAL IN-HOUSE	57.613	58.700
TOTAL IN-HOUSE RDT+E	31.780	32.800
ANNUAL OPERATING COST	12.531	12.600

PERSONNEL DATA (END OF FY 1970)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	2971	3	268	2703
CIVILIAN	1882	2	156	1726
TOTAL	4853	5	424	4429

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
279887	562.853 419.038 5232.053 6213.944	178.878 287.899

...MISSION

PLAN/CONDUCT QUANTITATIVE ENG, DEV, TEST + EVAL OF MANNED/UNMANNED AERO VEH. EVAL INCL AERODYN PERF/STAB/CONTR, SYS + SUBSYS, GND SPT EQUIP. MAINTNBLTY/RELIABLT, ACFT ARRESTORS, AERC DECELWTR, CONDUCT RSCH TO SPT MSN. OPER A+ O RSCH PILOT SCH. SPT NASA, DOD TENANTS + GOVT CONTRACTORS.

...CURRENT IMPORTANT PROGRAMS

DOD AIMS PROGRAM TEST OF AUTOMATIC ALTITUDE REPORTING AND SECURE IFF
C-5A AERIAL DEL SYS TEST, RELIABILITY/MAINTAINABILITY, CAT I AND II TEST
F/FD-111A, D, E SPEC WEAPONS TEST, PERF, STAB AND CONT AND SYSTEMS CAT I/II
A-7C FLIGHT TEST PROGRAM
JOINT AF/NASA YF-12 PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL FACILITIES AND EQUIPMENTS ARE AVAILABLE TO PROVIDE A COMPLETE RANGE OF SERVICES FOR CONDUCTING CATEGORY FLIGHT TESTING OF AERONAUTICAL SYSTEMS. CONDUCT FLIGHT EVALUATION AND RECOVERY OR RETRIEVAL OF RESEARCH VEHICLES, TRAIN AEROSPACE RESEARCH PILOTS. ENGINEERING LABS, REALTIME INSTRUMENTED RANGES, DATA COLLECTION, REDUCTION AND ANALYSIS LABS, PHOTO /TV, ACFT/ENGINE/MAINT, TEST EQUIP, AND ELECTRONICS SHOPS ALONG WITH A COMPLEX OF DRY LAKES FOR RECOVERY AND EMERGENCY LANDING PROVIDE VARIOUS SUPPORT ALL TEST PROGRAMS. OTHER MAJOR FACILITIES ARE, PRECISION IMPACT, GUN/RY/BOMB, PHOTO RESOLUTION AND IR, RADAR FIDELITY, TACTICAL, + OPTICAL RANGES, CONTRACTOR-ASSIGNED HANGARS, SHOPS, LABS, AND OFFICE SPACE MUNITION STORAGE AND CHECKOUT JOINT PARACHUTE TEST FACILITY AT EL CENTRO NAF ENGINEERING SIMULATION LAB AND BARRIER/ARRESTING GEAR COMPLEX.

INSTALLATION SPECIAL WEAPONS CENTER, KIRTLAND AIR FORCE BASE, N. MEX.

CO COLONEL A.G. SWAN TECH ADVISOR D.E. CHADWICK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	19.346	43.476
TOTAL PROCUREMENT	0.004	0.013
TOTAL O&M	1.599	5.503
TOTAL OTHER	18.459	19.827
TOTAL ANNUAL LAB	39.408	68.819
TOTAL IN-HOUSE	35.078	62.626
TOTAL IN-HOUSE RDT+E	15.346	36.233
ANNUAL OPERATING COST	10.145	12.150

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF		
MILITARY	1479	22	267		1212
CIVILIAN	1154	3	115		1039
TOTAL	2633	25	382		2251

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2057	228.021	334.514	1659.257	2221.792	48.605	88.152

...MISSION
CONDUCTS AIRCRAFT COMPATIBILITY TESTING OF SPECIAL WEAPONS AND SUPPORT EQUIPMENT PLANS AND PROVIDES AIR SUPPORT FOR NUCLEAR WEAPON TESTING
CONDUCTS SURVIVABILITY/VULNERABILITY TESTS AND ANALYSES OF WPN SYSTEMS TO NUCLEAR/WPN EFFECTS AND SUPPORTS AEC/DDO NUCLEAR TESTS.

...CURRENT IMPORTANT PROGRAMS
PROJECT EMERY, UNDERGROUND NUCLEAR TESTING
SURVIVABILITY EVALUATION AERONAUTICAL SYSTEMS
TRANSIENT RADIATION EFFECTS TESTING FOR MINUTEMAN AND SAFEGUARD MISSILES
SEEK SKY/CRUNCH
MKT MOD-0 GUIDED WEAPON

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MAJOR EQUIPMENT: MARK EMP SIMULATOR, EMP DIPOLE SIMULATOR, SFXR PULSE RAD 1500 AND SFXR FX100 TREE SIMULATOR SEISMIC IMPULSE MACH CLASS 100 CLEAN ROOM INSTRUMENTATION VANS ELECTRONIC SHOP STATIC TEST EQUIPMENT AND DYNAMIC TEST EQUIPMENT CLIMATIC TEST EQUIPMENT TELEMETRY ACQUISITION SYSTEM AIRBORNE EMP SIMULATOR AND AUDIO-VISUAL EQUIPMENT.
MAJOR FACILITIES: ELECTROMAGNETIC PULSE SIMULATION FACILITY, ENGINEERING AND INSTRUMENTATION FACILITY TRANSIENT RADIATION EFFECTS FACILITY SEISMIC IMPULSE FACILITY NUCLEAR WEAPONS FLIGHT TEST FACILITY WEAPONS PARACHUTE TEST FACILITY AND TELEMETRY FACILITY.

INSTALLATION: AIR PROVING GROUND CENTER, EGLIN AIR FORCE BASE, FLA.

COMDR MG J.C. MAXWELL CHIEF SCIENTIST MR T.H. DALEHITE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+L	74.533	92.970
TOTAL PROCUREMENT	182.429	175.000
TOTAL G+M	2.144	2.200
TOTAL OTHER	51.787	41.222
TOTAL ANNUAL LAB	310.893	311.392
TOTAL IN-HOUSE	113.853	113.242
TOTAL IN-HOUSE RDT+L	59.922	69.820
ANNUAL OPERATING COST	29.382	29.884

PERSONNEL	PERSONNEL DATA (END OF FY 1970)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	PROF	
MILITARY	4739	11	443	4269	
CIVILIAN	2739	11	532	2207	
TOTAL	7448	22	972	6476	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP EQUIP
465209	653.221	885.840	6829.018	8368.079	191.059	218.132

...MISSION

EXPL ADV SNCR DEV AND TEST EVAL INITIAL ACQUISITION OF NONNUCLEAR MUNIS. CONDUCTS TESTS + EVALUATIONS IN FOLLOWING AREAS: EHM, AFMET, COM-CONTROL, INTRUSION/INTERDICTION, ELECTRO/OPTICAL, CLIMATIC SIMULATION, VERTICAL PROBES. SUPPORTS SEA TESTS + TESTS OF OTHER USAF, DOD, + GOV. AGENCIES.

...CURRENT IMPORTANT PROGRAMS

MODULAR WEAPONS SERIES
CLOSE AIR SUPPORT WEAPONS SYSTEM
THREAT SIMULATIONS
CBU-42 WAAPM (WIDE AREA ANTIPERSONNEL MINE)
CBU-38 RINGTAIL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A CAPABILITY OF SCIENTIFIC-ENGINEERING PERSONNEL AND LABORATORIES FOR EXPLORATORY + ADVANCED DEVELOPMENT IN THE AREA OF NONNUCLEAR MUNITIONS. ARMAMENT SYS TEST ENVIRONMENT COVERING 720 SQ MI WITH LARGE ADJACENT WATER AREA. HAS 29 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADARS AND PHOTO+OPTICS. IS USED FOR MUNITIONS TESTS. ELECTROMAGNETIC TEST ENVIRONMENT IS AN INSTRUMENTED COMPLEX OF THREAT RADARS FOR EVALUATION OF EHM DEVICES AND TECHNIQUES. WEAPONS EFFECTIVENESS AND SYS TEST ENVIRONMENT PROVIDES A REALISTIC ENVIRONMENT FOR TESTING A WPNS SYS AGAINST AN ACTIVE DEFENSE SYSTEM. A CLIMATIC LAB CAPABLE OF TESTING COMPLETE WEAPON SYSTEMS. A PROBE LAUNCH FACILITY FOR LAUNCHING SCIENTIFIC PROBES. A SCIENTIFIC DATA PROCESSING FACILITY. A PHOTO LAB. AN INSTRUMENTATION/DESIGN/FABRICATION FACILITY.

INSTALLATION MISSILE DEVELOPMENT CENTER, HOLLOMAN AIR FORCE BASE, N. MEX.

CO COLONEL J.C. MANATT CHIEF SCIENTIST E.A. STEINHOFF

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	41.870	2.000
TOTAL PROCUREMENT	0.000	2.000
TOTAL O+M	3.926	2.000
TOTAL OTHER	15.699	2.000
TOTAL ANNUAL LAB	61.495	2.000
TOTAL IN-HOUSE	55.617	2.000
TOTAL IN-HOUSE RDT+E	36.866	2.000
ANNUAL OPERATING COST	12.488	2.000

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	
MILITARY	1982	48	230	1752
CIVILIAN	1578	8	157	1421
TOTAL	3560	56	387	3173

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP
106998	933.701	212.795	4365.351	5511.847	131.238
					97.866

...MISSION
 PROVIDES AIR FORCE SUPPORT TO WHITE SANDS MISSILE RANGE.
 OPERATES THE CENTRAL INERTIAL GUIDANCE FACILITY.
 OPERATES THE HIGH-SPEED TEST TRACK.
 OPERATES THE RADAR TARGET SCATTER SITE.

...CURRENT IMPORTANT PROGRAMS
 A7001 FIREFLY
 2875 SRV TRACKER
 3461 RC-34A DRONE
 13301 MINUTEMAN SLED
 62740 ACRES ENVIR SLED.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
 HIGH-SPEED TEST TRACK FACILITY INCLUDING ROCKET PROULSION TEST STAND, AND
 RAIN AND DUST EROSION SYSTEMS. GUIDANCE TEST FACILITY INCLUDING 100- AND
 260-INCH CENTRIFUGES, 3-AXIS FLIGHT SIMULATOR, STELLAR SIMULATOR, AND
 ENVIRONMENTAL TEST CHAMBERS, DRONE TEST SUPPORT FACILITY WITH RC-34 AND
 LAUNCH FACILITIES-AIRCRAFT SYS TEST FACILITY WITH AIRCRAFT AND SUPPORT
 EQUIPMENT INCLUDING ELECTRO-OPTICAL TARGETS. MISSILE LAUNCH FACILITY WITH
 LAUNCHERS AND SPIN BALANCE MACHINE. COMPUTATION FACILITY INCLUDING
 CDC-3600-3400 COMPUTER SYS, HYBRID ANALOG COMPUTER, AND PRE-COMPUTER DATA-
 PROCESSING EQUIPMENT PHOTO-OPTICAL FACILITY INCLUDING GROUND AND AERIAL
 CAMERAS INCLUDING PHOTO COVERAGE OF HIGH SPEED TEST TRACK AND PHOTO PROC
 LAB RADAR TARGET SCATTER FAC INCL ELECTRONIC SYS TO SIMULATE RADAR REFLEX.

INSTALLATION ARNOLD ENGINEERING DEVELOPMENT CENTER, TENN.

BRIG. GEN. JESSUP D. LOWE, MR. DON R. EASTMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	48.523	51.437
TOTAL PROCUREMENT	0.377	0.002
TOTAL O+M	0.204	0.000
TOTAL OTHER	13.519	8.324
TOTAL ANNUAL LAB	62.623	59.761
TOTAL IN-HOUSE	4.637	4.861
TOTAL IN-HOUSE RDT+E	0.000	2.000
ANNUAL OPERATING COST	3.388	3.558

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	95	1	64	31
CIVILIAN	158	1	48	102
TOTAL	245	2	112	133

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB ADMIN OTHER TOTAL	OF SQUARE FEET)		REAL PROP	EQUIP	
42119	1113.556	198.831	535.861	1848.248	350.346	4.956

...MISSION

PRIMARY MISSION IS TO SUPPORT THE TIMELY ACQUISITION OF SUPERIOR AERO-SPACE SYSTEMS BY CONDUCTING ENVIRONMENTAL TESTS SIMULATING ACTUAL FLIGHT CONDITIONS AS WELL AS POSSIBLE. SECONDARY MISSION IS TO KEEP EXISTING FACILITIES MODERN, DEVELOP NEW TEST TECHNIQUES AND PLAN ADV FACILITIES.

...CURRENT IMPORTANT PROGRAMS

WIND TUNNEL TESTS OF F-15 ACFT CONFIG AND PH2 ENGINE TEST CONTINUE.
PREPARATIONS CONTINUE FOR GE-4 SST ENGINE TESTS.
TESTS CONTINUE ON REENTRY VEHICLE CONFIGURATION FOR ABRES PROGRAM.
MINUTEMAN III ROCKET MOTOR DEVEL AND QUAL TESTS CONTINUE.
OTHER TESTS INCLUDE F-111, A-7, F-4, AIM-82, SRAM, VIKING, AND SAFEGUARD.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPOSED OF ABOUT 32 MAJOR TEST FACILITIES HAVING A CAPITAL VALUE OF MORE THAN 400M DOLLARS. INCLUDED ARE 14 WIND TUNNELS WITH TEST SIZES TO 16 FT SQ AND SPEEDS RANGING FROM SUBSONIC TO MACH NO. 22. FIVE TURBINE ENGINE TEST CELLS WHICH CAN PROVIDE TRUE SIMULATION TO ABOVE MACH 3, FIVE ROCKET ALTITUDE TEST CELLS, THE LARGEST RATED AT ONE-HALF MILLION LB. THRUST, THREE HYPERBALLISTIC RANGES, AND FOUR SPACE SIMULATION CHAMBERS, THE LARGEST BEING 42 FT IN DIAM AND 82 FT HIGH. THESE TEST FAC. HAVE SUPPORTED THE DEVELOPMENT AND QUALIFICATION OF EVERY MAJOR AERONAUTICAL, MISSILE, AND SPACE SYSTEM INITIATED SINCE 1954. THROUGH ADEQUATE PLANNING OF AN ENVIRONMENTAL TEST PROGRAM IN THESE FACILITIES, DEVELOPMENT PROGRAM MANAGERS CAN HELP TO ASSURE THAT SYSTEM DESIGN DEFICIENCIES ARE FOUND EARLY, PREVENTING COST AND SCHEDULE OVERRUNS.

INSTALLATION: EASTERN TEST RANGE, PATRICK AIR FORCE BASE, FLA.

MAJOR GEN D M JONES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1970 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	164.796	137.004
TOTAL PROCUREMENT	0.574	0.034
TOTAL O+M	2.611	2.669
TOTAL OTHER	69.733	50.015
TOTAL ANNUAL LAB	237.714	189.722
TOTAL IN-HOUSE	40.428	37.086
TOTAL IN-HOUSE RDT+E	18.420	17.000
ANNUAL OPERATING COST	23.799	21.265

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	1941	34	401	1540
CIVILIAN	2146	1	141	2005
TOTAL	4087	35	542	3545

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
18264	157.188	359.002	7325.083	7841.273	372.075	649.666

...MISSION
BALLISTIC MISSILE TESTING R+D
SPACE LAUNCH
DASC
OT/FOT

...CURRENT IMPORTANT PROGRAMS
MINUTEMAN 3
ATLAS/AGENA USAF PROGRAMS
TITAN 3
POLARIS
POSEIDON

...FUNCTIONS/EQUIPMENT/CAPABILITIES
GUIDANCE EVALUATION/MISTRAM
TRACKING SHIP
TELEMETRY
RADAR TRACKING/MIPR
IMPACT SCORING
TELEMETRY SHIP
TELEMETRY AIRCRAFT
PHOTOGRAPHY
DATA PROCESSING
SPACE AND MISSILE LAUNCH FACILITIES
COMMUNICATIONS
COMMAND/CONTROL RANGE SAFETY

INSTALLATION: SPACE AND MISSILE TEST CENTER, VANDENBURG AIR FORCE BASE, CALIF.

COMDR M/G LOUIS L WILSON JR CIV TECH DIRECTOR MR S R RADOM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+F	83.275	74.842
TOTAL PROCUREMENT	4.573	3.202
TOTAL O+M	0.000	2.000
TOTAL OTHER	4.784	6.095
TOTAL ANNUAL LAB	88.632	86.937
TOTAL IN-HOUSE	39.719	34.769
TOTAL IN-HOUSE RDT+E	34.935	27.874
ANNUAL OPERATING COST	61.800	61.782

PERSONNEL	PERSONNEL DATA (END OF FY 1970)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	596	2	71	525
CIVILIAN	527	2	175	332
TOTAL	1123	2	246	857

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1546	31.543	340.962	2057.499	2430.024	16.308	134.000

1. MISSION

PROVIDE FIELD TEST MANAGEMENT PRELAUNCH AND CONDUCT OF LAUNCH OPERATIONS AND SUPPORT FOR PROGRAMS FOR WHICH IT HAS BEEN DESIGNATED TEST AGENCY. PLAN PROGRAM MANAGE OPERATE AND MAINTAIN THE WESTERN TEST RANGE IN SUPPORT OF DOD NASA AND OTHER RANGE USERS.

2. CURRENT IMPORTANT PROGRAMS

ACTIVATION OF NEW DOWNRANGE SITE IN SUPPORT OF MINUTEMAN 3 PROGRAM.
DEVELOPMENT OF RANGE CAPABILITIES IN SUPPORT OF GIANT PATRIOT PROGRAM.
SUPPORT AND CONDUCT TARGET LAUNCHES IN SUPPORT OF SAFEGUARD SYSTEM TESTS.
DEVELOP CAPABILITIES FOR SUPPORT OF TITAN 3D LAUNCH PROGRAMS.
SUPPORT AND CONDUCT MINUTEMAN III R&D DASC AND OT PROGRAM LAUNCHES.

3. FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABLE OF SUPPORT OF BALLISTIC PROBE AND SATELLITE LAUNCH PROGRAMS.
AVAILABLE 24 HOUR AZIMUTHS RANGE FROM 165 TO 330 DEGREES.
CAPABILITIES INCLUDE LAUNCH SUPPORT FIELD TEST MANAGEMENT TRACKING COMMAND CONTROL TELEMETRY PHOTOGRAPHY DATA REDUCTION IMPACT SCORING AND RECOVERY AND COMMUNICATIONS SYSTEMS.

INSTALLATION: ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE, BETHESDA, MD.

HUGH R. MITCHELL COL USAF MC HAROLD D. WYCKOFF PhD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1972 (ACTUAL)	1971 (ACT + EST)
TOTAL RDT+E	2.697	2.652
TOTAL PROCUREMENT	3.828	3.222
TOTAL O+M	3.828	2.222
TOTAL OTHER	3.731	2.832
TOTAL ANNUAL LAB	3.428	3.682
TOTAL IMHOUSE	3.428	3.682
TOTAL IMHOUSE RDT+E	2.697	2.852
ANNUAL OPERATING COST	1.148	1.196

PERSONNEL	PERSONNEL DATA (END OF FY 1972)			
	AUTHORIZED STRENGTH	TOTAL PHD'S	TOTAL PROF	NON- PROF
MILITARY	67	22	41	26
CIVILIAN	145	12	30	115
TOTAL	212	32	71	141

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
7	2.844	0.811	0.365	2.122	6.135	2.363

...MISSION

THE MISSION OF AFRTI SHALL BE TO CONDUCT SCIENTIFIC RESEARCH IN THE FIELD OF RADIOBIOLOGY AND RELATED MATTERS THAT ARE ESSENTIAL TO THE MEDICAL SUPPORT OF THE UNITED STATES MILITARY SERVICES, TO NATIONAL WELFARE, AND TO THE WELL-BEING OF MANKIND

...CURRENT IMPORTANT PROGRAMS

PREDICTION OF HUMAN INDIVIDUAL RADIOSENSITIVITY
 PHYSIOLOGICAL MECHANISMS OF SPLIT DOSE INCAPACITATION RESPONSE
 DRUG MODIFICATION OF RADIATION INDUCED INCAPACITATION
 STIMULATION OF MARROW RECOVERY POSTIRRADIATION
 FISSION NEUTRON EFFECT ON INCAPACITATION AND GASTROINTESTINAL SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS- OPERATE FACILITIES FOR CONDUCTING RADIOBIOLOGY RESEARCH AND DISSEMINATING RESULTS, CONDUCT ADVANCED TRAINING, OPERATE FACILITIES FOR PRODUCTION OF SHORT-LIVED RADIOISOTOPES, AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED. MAJOR EQUIPMENT INCLUDES PULSE AND STEADY STATE NUCLEAR REACTOR, 50,000-CURIE COBALT-60 IRRADIATOR, POSITIVE ION ACCELERATOR, ELECTRON MICROWAVE LINEAR ACCELERATOR, AND X-RAY MACHINES, WITH AN ASSOCIATED EXPOSURE ROOM COMPLEX. SUPPORT SERVICES INCLUDE MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY ANIMALS, EQUIPMENT DESIGN AND FABRICATION ASSISTANCE, REAL-TIME DATA ACQUISITION SYSTEM, TELEVISION AND FILM DOCUMENTATION OF EXPERIMENTS, PERSONNEL AND ENVIRONMENTAL MONITORING, EDITORIAL ASSISTANCE IN REPORT PREPARATION, AND A LARGE TECHNICAL LIBRARY.

APPENDIX 1. INDEXES OF ORGANIZATIONS

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A. Names in Alphabetic Order (continued)

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Department of the Army

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Engineer Reactor Group Ft. Belvoir, Va.	Deleted.
Land Warfare Laboratory Aberdeen Proving Ground, Md.	Formerly: Limited War Laboratory
Medical Research Unit, Europe Landstuhl, Germany	Deleted.

Department of the Navy

Naval Aerospace Medical Research Laboratory Pensacola, Fla.	Formerly: Naval Aerospace Medical Institute
Naval Applied Science Laboratory Brooklyn, N. Y.	Closed.
Naval Ordnance Unit	Deleted.
Naval Radiological Defense Laboratory San Francisco, Calif.	Closed.
Naval Security Engineering Facility Washington, D. C.	Deleted.
Naval Submarine Medical Research Laboratory New London, Groton, Conn.	Formerly: Naval Submarine Medical Center

Department of the Air Force

Air Force Epidemiological Laboratory Lackland Air Force Base, Tex.	Deleted.
Space and Missile Test Center Vandenberg Air Force Base, Calif.	Formerly: Western Test Range

*Changes since publication of MAR 69-4, 30 October 1969.

APPENDIX II

Definitions

1. *In-House RDT&E Activities*--Those organizational entities engaged in performing work in any or all of the categories of research, development, test or evaluation. The RDT&E effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDT&E activity.

2. *Professionals*--Full-time government scientific and engineering personnel actively engaged in RDT&E activities. In the case of civilians, this will include all those holding positions that fall into the following categories under the Civil Service Occupational Groups and Series of Classes, General Schedule (GS), August 1965:

015	411	440	806	861	894	1321	1384
180	412	470	808	870	896	1330	1390
190	413	471	810	871	1301	1340	1520
193	414	601	819	880	1306	1350	1529
401	415	602	830	881	1310	1360	1530
403	430	680	840	890	1313	1370	1640
405	434	701	850	892	1315	1372	
410	435	801	855	893	1320	1382	

Military professionals, both officer and enlisted, actively engaged in RDT&E activities should be identified with the functions described in the above-referenced civilian job series. Generally, these jobs are referenced in Department of Defense Occupational Conversion Tables DoD 1312.1-0, DoD 1312.1-E under DoD groups 5 and 6 of DoD 1312.1-0, and various other groups of DoD 1312.1-E, published under the provisions of DoD Instruction 1312.1. Lawyers, accountants, chaplains, social workers and educators should be excluded.

3. *Technicians*--Generally nonprofessionals working on an RDT&E project or program in support of a professional. In the case of civilians, it will include, but will not necessarily be limited to, those holding positions that fall into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule (GS), August 1965:

181	647	683	1311
404	648	802	1341
421	649	817	1371
644	650	818	1374
645	659	856	1521

Discretion will have to be exercised by each R&D activity in determining the number of military technicians. Generally, they should follow the guidelines established in defining civilian technicians and can be identified in DoD 1312.1-E.

4. *Real Property Cost*--Each reporting activity will be responsible for determining and reporting the cost of real property. This cost should be established in accordance with the guidelines and definitions in DoD Instruction 4165.14. This should also include the cost of installed equipment.

5. *Equipment Cost*--Each reporting activity will be responsible for determining and reporting the cost of personal property. This cost will include those costs incurred by the acquisition (including installation when applicable) of all property other than real property. It will include personal property such as machine tools, environmental test equipment, furniture, laboratory equipment, vehicles, etc. Items having a unit cost of less than \$200 may be excluded.

6. *Space*--The data to be furnished should include only walled and roofed building space. It should not include such things as parking lots, open storage areas, lean-tos, etc. The source of data may be the annual report submitted in compliance with the requirements of DoD Instruction 4165.14.

7. *In-House Obligations*--Obligations reported under this category are for activities performed, or to be performed, by the organizational entity. Their work is carried on directly by their own personnel. Particular care should be taken to include under in-house performance the cost of supplies and equipment essentially of an off-the-shelf nature that are procured for use in in-house research and development, plus such things as travel, publications and other types of services in support of in-house functions. Excluded from the in-house total are expenses for planning and administering programs by DoD personnel (including military) of contracts and grants for out-of-house work.

8. *Out-of-House Obligations*--Obligations reported under this category are for activities performed, or to be performed, by other than the organizational entity. Out-of-house performers may include other departmental or DoD organizational entities, industrial firms, educational institutions, not-for-profit institutions and private individuals. Included as out-of-house work are all expenses paid the out-of-house performers, as well as the expenses incurred in planning and administering these programs by personnel of the organizational entity. This would also include travel and other supporting services.

9. *Annual Operating Cost*--This should generally reflect the overhead cost of operating the laboratory or facility. It should include such things as costs of utilities, rents, janitorial services, guard and fire protection, support services such as supply personnel, printing, maintenance of buildings and grounds, etc. It should not include the salaries of direct labor personnel such as scientists, engineers, technicians, draftsmen, machinists, etc.

APPENDIX III

Selected Standard Abbreviations and Acronyms

AAM -- air-to-air missile	GCA -- ground-controlled approach
AAW -- anti-air warfare	HF -- high-frequency
ADPE -- automatic data-processing equipment	IFF -- identification, friend or foe
AEC -- Atomic Energy Commission	IR -- infrared
AEDC -- Arnold Engineering Development Center	MPT -- military potential test
AFMDC -- Air Force Missile Development Center	NAF -- Naval Air Facility
AFSC -- Air Force Systems Command	NASA -- National Aeronautics and Space Administration
AFWET -- Air Force weapons effectiveness testing	NASC -- Naval Air Systems Command
AMC -- Army Materiel Command	NAVORD -- Naval Ordnance Systems Command
APG -- Aberdeen Proving Ground	NAVSHIP -- Naval Ship Systems Command
ARPA -- Advanced Research Projects Agency	NEMP -- nuclear electromagnetic propagation
ASW -- antisubmarine warfare	PI -- product improvement
AUS -- Army, United States	POL -- petroleum, oil, lubricants
BIS -- Board of Inspection and Survey	QA -- quality assurance
BW -- biological warfare	QMDO -- qualitative materiel development objective
CBR -- chemical, biological, radiological	QMR -- qualitative materiel requirement
CE -- Chief of Engineers, Army	RDT&E -- research, development, test and evaluation
CG -- commanding general	RF -- radio frequency
CNO -- Chief of Naval Operations	RV -- reentry vehicle
COMMEL -- communications electronics	SATS -- short airfield tactical support
DA -- Department of the Army	SDR -- small development requirement
DASA -- Defense Atomic Support Agency	SI -- ship installation
DoD -- Department of Defense	SP -- self-propelled
DZ -- drop zone	ST -- service test
ECM -- electronic countermeasures	T&E -- test and evaluation
ECOM -- Electronics Command, Army	TOTO -- Tongue-of-the-Ocean
ED -- engineering development	UDT -- underwater demolition team
EEDT -- engineering development and test	ULMS -- Undersea Long-Range Missile System
EEG -- electroencephalogram	USATECOM -- U. S. Army Test and Evaluation Command
EKG -- electrocardiogram	UTTAS -- utility tactical transport aircraft system
ELINT -- electronic intelligence	USW -- undersea warfare
EMP -- electromagnetic propagation	UV -- ultraviolet
EMW -- electromagnetic warfare	V/STOL -- vertical/short takeoff and landing
EODC -- Explosive Ordnance Disposal Center	
ET -- engineering test	
EW -- electronic warfare	
FA -- field artillery	
FBM -- fleet ballistic missile	